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Dr. S. S. KULSHRESHTHA

THE DEVELOPMENT OF TRADE AND INDUSTRY UNDER The Mughals

(1526–1707 A.D.)

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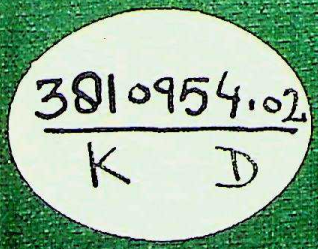

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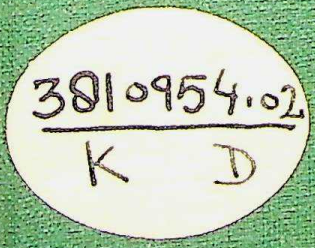

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The Development of Trade and Industry Under The Mughals

(1526 to 1707 A. D.)

(Based Upon Original Sources)

by

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K D

DEDICATED TO
The sweet memory of my revered father
M. Brijnandan Lal
Born, Hathras (U. P.) April, 1885 to
M. Radhey Prasad,
Died, Agra 14.2.57, whose insight
into Persian and Mughal History
was ever a source of inspiration to me.

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PREFACE

The development of Trade and Industry in a country is rather a modern idea and becameprominent with the advent of the Industrial Revolution. There hardly existed a scientific policy for the material development of this country in the mediaeval age. Yet the two hundred years of Mughal period that added a new element to our society and gave a fresh impetus to trade and industry is a fit subject of study. There is no dearth of material on this subject. The Persian Manuscripts and the accounts left by foreign travellers who visited the country during that age, though perfunctory and biassed, yield a valuable harvest of information to an enquiring student. It is upon the basis of these contemporary original authorities that the present work has been written.

The thesis fills a long gap through careful study and sifting of evidence gathered from stray remarks found in a number of Persian Manuscripts and the accounts of foreign travellers, who visited India during the Mughal period. The age was not uniform in character as far as the lot of the people was concerned. Where as on the one hand we read of Akbar's impartial attitude towards the welfare of his subjects, we are, on the other hand, confronted with Shahjehan's reckless prodigality and Aurangzeb's iconoclastic zeal.[1] Under such political drawbacks trade and industry could not flourish.

The author, before undertaking his investigation, devoted a considerable time to the acquisition of a knowledge of Persian language which provides a mine of information in the Manuscripts and published works on the various topics discussed in the thesis. English Translations of Portuguese and French works have been copiously used. The Saraswati Bhandar (formerly known as Victoria Library), Udaipur, which owes its existence to the generosity of Late H. H. Maharana Sajjan Singh, rich in Persian Manuscripts, has proved a valuable asset to the author who feels genuine gratitude for its founder. DeLaet, the Flemish geographer of the times of Shahjehan,

1. *Mirat-i-Ahmadi*: Hussain Muhammad Khan. Per. MSS. (S. B. U.) p 410. Farman dated 1075 H. Para 21 makes it incumbent upon the people of Ahmedabad neither to burn lamps on Dewali nor to throw water on the day of Holi. The actual words used are:

"... *Hinduan dar shahar-o-parganajat Ahmedabad rasum-i-batla riwaj dada, shab-i-Diwali chiragha dur aiyam-i-Holi ba zaban ba fohash goi..... aar har chakla-o-bazar Holi min sozand wa chaub har kas ke badst min ayad Ba zaur avari manad zade.... dar atish min andazand, wa muqir sazand ke dar b izar chiragh hai Diwali na farozind wa chaub-i-ahdi ra ba duzdi ya ba zaur barda dar atish Holi na andazand....*'

Shahjehan's prodigality has been referred to under Chapter XII (Conclusion and Summary). Mirat-i-Alam Per MSS. pp 696-775.

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has not done full justice to the geography of the Mughal period, though his conclusions are sound.[1]

The author's ambition to write a full geographical account of the Mughal period inspired by the learning and indefatigable industry of Dr. Ashirvadi Lal Srivastava, M.A., Ph. D., D. Litt., as early as 1932, when the latter was his colleague in Maharana College, Udaipur, is being realised, thanks to the Providence, though as late as 1952. The author's cherished desire, to complete the geography of the Mughal age was hindered by circumstances beyond human control such as the deaths of his two successive wives and ailment and deaths of a number of his children and other family troubles. But for the deep affection and abiding inspiration of his mother, Mrs. Ram Dulari, the work would not have seen the light of day.

The map showing routes followed in the period under review has been prepared after consulting various maps, allowance being given to the changes of some names of the cities and ports. It is interesting to note that there have arisen some minor changes in the configuration and physiography of the country since the Mughal age. The disappearance of the Hokara, a river flowing on the boundaries of Sind, the blocking up of the port of Surat by the dwindling of the delta of the Narbada and consequent silting of the port, the filling up of the Gulf of Cambay and with it the disappearance of the ports of Kathiawar and Gujrat, specially that of Lahri Bander, are events with which are associated the changes in the trend of Commerce. Unfortunately, the chronicles of the times fail to provide statistical figures for a correct estimate of the changes. Persian text has in most of the cases been rendered in Roman script.

There is enough scope of research on this topic, and God willing, in his next thesis, some important aspects only touched partly in his work or not touched at all, will be fully dealt with. That minimum real wages were certainly higher in the period under review as compared to the modern times has been fully borne out by the statistical tables given in the appendix as a supplement to chapter IV. The author is deeply obliged to Dr. A. L. Srivastava for all the help and guidance, but for whose encouragement, the work would not have been complete. Sincere thanks are also due to the Director and Staff of the National Archives, New Delhi, authorities of the Old Records, Garh, Kota, as also to Dr. Raghubir Singh, Heir-Apparent of Sitamau and to the staff of his personal library.

Govt. College, S. S. Kulshreshtha.
KOTA

1. James De Laet, the Flemish geographer, was born at Antwerp in 1593 A.D. and died at Leyden in 1649 A. D. His public life began in about 1625 when he occupied the position of the Director of the West Indies; thus in touch with the Indian affairs. He published in 1631 "De Imperio Magni Mogolis sine India vera", "Empire Of the Great Mughal" translated by Hoyland and S. N. Bannerjee, Taraporewala, Kitab-Mahal Bombay, 1928.

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ABBREVIATIONS

1. **Ain** : The Ain-i-Akbari by Abulfazl. Persian Text. Edited and translated into English by Blockmann (Vol. I); Jarrett and Sarkar (Vols. II and III)
2. **Bernier's Travels** : Bernier's Travels in the Mughal Empire 1656-68. by A. Constable, London, 1891.
3. **Chahar**: Per MSS. Chahar Gulshan Muhammad Shahi by Raizada Chatterman.
4. **C. H. I.** : Cambridge History of India.
5. **Commissariat** : M. S. Commissariat History of Gujrat.
6. **De Laet** : De Imperio Magni Mogolis by J. de Laet, Leyden (1631) Translated into English by Hoyland and Bonerjee.
7. **Elliot** : History of India as told by its own Historians, Edited from the Posthumous papers of Sir H. M. Elliot by J. Dawson, London 1871 (8 Volumes) :
8. **English Factories** : The English Factories in India by W. Foster Oxford.
9. **Hawkins** : Hawkin's Voyages. Edited for the Hakluyt Society, 1877.
10. **J. R. A. S.** : The Journal of Royal Asiatic Society of Great Britain and Ireland.
11. **J. A. S. B.** : The Journal of Asiatic Society of Bengal.
12. **Khulasat** : Per MSS. Khulasat-ut-Tawarikh by M. Sujan Rai Khatri.
13. **Monserrate** : Mongolicae Legationis Commentarius by Father A. Monserrate. Memoirs of Asiatic Society of Bengal, Vol. III.
14. **Muntakhab** : Per MSS. Muntakhab-ut-Tawarikh also called Tarikh-i-Badayuni by Abdul Qadir Badayuni.
15. **P. T.** : Persian Text.
16. **Pyrard** : The Voyage of Francois Pyrard De Laval to the East Indies. Translated for the Hakluyt Society, 1887-89.
17. **Per MSS.** Persian Manuscript.
18. **Pant**: Commercial Policy of the Mughals.
19. **Roe** : Embassy of Sir Thomas Roe to the Court of the Great Mughal 1615-19 (Hakluyt Society).
20. **S. B. U.** : Saraswati Bhandar, Udaipur. This was formerly known as Victoria Library, Udaipur.
21. **Tavernier**: Travels of Tavernier. Translation of Less -six Voyages de J. B. Tavernier on Turquie en Perse et aux Indies.
22. **Terry** : Voyage to East India by Edward Terry, London (1777).
23. **Vera Anstey** : The Economic Development of India.
24. **Mirat** : Mirat-i-Ahmadi per Mss-Hussain Mohammad Khan.

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CHAPTER I

INTRODUCTION : BACKGROUND OF THE PERIOD

1. Introduction

The Mughal age from 1526 to 1707 A. D. was a period of renaissance in India. While trade and industry progressed well, fine arts like sculpture, music, painting reached perfection. The brave and simple hearted Babar, the wandering Humayun, the glorious Akbar, the easy but uncertain-tempered Jehangir, the magnificent Shahjehan, the narrow-minded, obstinate and industrious Aurangzeb, —all these rulers combined some of the best elements of Turkish character; and their administration was better than that of any oriental country of their times. The progress of trade and industry depends upon peace and administration, a sloth and degeneration of which reflects adversely. Babar in the interval of campaigns in India amused himself by touring the country, seeing it with his own eyes and recording his impressions for the benefit of his readers. He also spent much time in superintending baths and gardens designed as refuges against the burning summer heats.[1] A ruler like him could not have remained indifferent to trade and industry. His son, Humayun, on the other hand, though well-read, lacked the promptitude and ability of his distinguished father. He was driven into exile by Shershah, the valiant Afghan who kept his clansmen together and by his good system of administration, made the country prosperous and encouraged trade and industry. Shershah's early death and the incompetence of his successors led to Humayun's return. His star of fortune shone effulgent. While on his way to Kabul the Turk horse traders agreed to sell horses on a promise, the payment of price being subsequent to success in India.[1] But shortly after, having regained his lost kingdom in India, an accident of a fall from a library staircase in Delhi, cut short his life.

---

1 *Tuzak-i-Babri* : Per. Mss. (S.B.U), pp. 399-406.
Ilminski Fragment. Quoted in Rushbrook Williams, *Empire Builder of the 16th. Century*. Chap I., p. 14
S. Lanepoole , *Rulers of India Series.* :

2 Mautmad Khan, *Iqbalnama-i-Jehangiri* (P.T.); p. 73. Original text runs as under

قافله عظیم در هندوستان به قندهار آمده و ودای دلخواه کرده- اسپان عراقی
از ترکمان خریده بودند دراین وقت قافله ش با سوداگران عده ملازمت آمده
معروض داشتند که اسپان مرا به سرکار گرفته به امرا قسمت نمائند- بهای
آنرا بعد از فتح هندوستان مرحمت نمائند- حضرت جنت آشیانی این معنی
را از تائیدات آسمانی دانسته فرمودند که اسپان را به قیمت دلخواه انتباه
نمائند وتمسکات نوشته به ایشان سپارند-

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Neither Babar nor Humayun had any chance of elaborating a system of civil government, for, during their adventurous lives they were fully occupied in fighting to secure possession of North India and to lay the foundation of an imperial line. "The principles and system of Mughal administration in the 16th and 17th centuries were mainly the products of the genius of Akbar, and depended for their success upon the industry and natural capabilities of the autocrat who had to apply them to the governance of an extensive but not wholly subjugated territory, and that they lost much of their efficacy when their author died."[1] At Akbar's death reaction was certain. Under Jehangir, in whom generosity had degenerated into self-indulgence, and whose temperament was artistic rather than practical, administration declined. For a time there was a revival under Shahjehan whose long peaceful reign led him to patronise fine arts and bring prosperity to his subjects and found time and opportunity to look towards the professions of trade and industry.

Aurangzeb's reign falls into two periods. From 1658 to 1684, he remained in North India where his narrow-minded efficiency and religious intolerance caused the alienation of warlike tribes and destroyed the loyalty of Rajputs to the empire which had been won by Akbar and maintained by Jehangir and Shahjehan. Having, as he believed, subdued the Rajputs, he left for Southern India to extinguish the remaining Muslim powers there, and to quell the rising activities of the Marahattas. Success in the former enterprise increased his difficulties in the latter, and, after ceaseless strife, his life ended, with the limits of his empire extended, but his resources squandered and its army ruined; while in the North, the Sikhs and the Jats were also showing rebellious tendencies. Even Aurangzeb's dying efforts to prevent his sons from repeating the fratricidal war for which he had set them an example, failed.

This was the trend of political events which had to shape the destinies of the state. But a political organisation, according to Knowles, "is a skeleton of the organism of which agriculture is the flesh, trade the life-blood, means of communication the nerves and minerals and forests produce and other natural products the nutriment."[2] How these forces moulded the destinies of the Mughal empire, for an economic regeneration forms a general theme of the following chapters. But before an attempt is made to elaborate the conditions under which trade and industry of the country was developed, it behoves us well to pause a little and consider the economic base provided for the period under review. This point for its elucidation requires consideration under two heads : (*i*) Social and Economic Conditions prior to the invasion of Muhammad Bin Qasim in 711 A. D., (*ii*). Economic and Social Conditions from 712 A.D. to 1526 A.D.

---

1 Smith, V. A., *Akbar the Great Mughal*, p. 354.

2 Knowles, L.C.A., *Economic Development of the British Overseas Empire*, Vol. II, p. 585.

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2. Social and Economic Conditions prior to the invasion of Sind in 712 A.D.

The Vedic age though not contributing much to the Science of Economics, was succeeded by the Epic age which was the most glorious period of the Hindus. During these two ages progress in agricultural pursuits was discernible. The plough was large and heavy. We hear of as many as 24 oxen being harnessed to one, irrigation and the use of manures have been referred to in the Rig Veda and Yajur Veda which speak of wheat, barley, rice, beans, sesamum from which oil is made.[1] Hunters, fishermen, charioteers, makers of jewel, basket-makers, barbers, weavers, slaughterers, workers in gold, cooks, sellers of dried fish, makers of bows, gatherers of wood, door-keeper, smelters, footmen, messengers, carriers, potters, smiths and so forth have been alluded to. Mention has also been made of the development of the cotton textiles and fine arts in gold.[2] Though sea was not unknown reference has been made to river navigation. The use of some metals was known, specially of gold, tin, lead, silver and ayas.[3] Houses were made of wood, and as such not a single relic of architecture of those times is available. Most of the transactions were based upon barter economy. Clothing consisted of woollen garments, silk raiments, robes of cotton yarn dyed in saffron were also used.

In the Ramayan and the Mahabharat eras, the growth of artisans, however, was rapid, and the crystallisation of caste nucleus was complete. Caste had become a creature of birth and not of occupation. Its four facets, representing as they did, the four great castes—Brahmans, Kshatriyas, Vaishyas and the Shudras, were adequate to impart that solidarity to society in India which was needed for the expansion and consolidation of population.

The rural economy of India at the coming in of Buddhism, was based on a system of village communities of land-owners on what in Europe is called 'peasant proprietorship'. A number of incidental allusions upon economic conditions occur in "Jattakas" and "Vinaya" and other books. The arts and crafts had acquired considerable proficiency and specialisation of industry had been reached. Slavery was common.[4] The Buddhistic literature speaks of a considerable localisation of industries.

The numerous details recorded by the Greeks and Kautilya prove beyond doubt that India of the fourth century B. C. was far ad-

---

1 *Yajurveda*, Vol. I, Chap. XII. Sh. 68-72. p. 489. (*Jaideo*, Arya Sahitya Mandal, Ajmer) :
C.H.I., Vol. I, p. 135.

2 *Yajurveda*. Chap XXV. Sh. 39. p. 366 (*Jaideo*, Ajmer Ed.) :
यदश्वाय वासं उपास्तृ त्स्थंधीवासं या हिरण्यान्यस्मै ।
सदांन भवन्तं पडवीशं प्रिया देवेष्वायामयमन्ति ।।

3 *Rigveda*. It is differentiated as 'red ayas' possibly copper, and black-ayas possible as iron.

4 *Manu*, VII. p. 125. Manu prescribes regular wages in money and kind for menials in king's service.

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vanced in material civilisation, and was amply supplied with the luxuries of everyday life. Kautilya is of opinion that the commerce of the South was of greater importance than that of the North, because the more precious commodities came from the Peninsula. While the northern regions supplied only blankets, skins and horses; the South supplied diamonds, gold, pearls and other gems. Textile fabrics came from Benares, Madaura and Konkan and even from China.[1]

There existed a regular road system with regular rest-houses. These consisted of overland caravan routes across the deserts going westwards to the sea-port of Baroch and northwards to Qandahar and Central Asia. Baroch was an ancient port from where ships went to Persian Gulf for Babylon (Baveru).[2] There was a great deal of traffic and according to "Jatakas" ships travelled from Benaras to Patna, Champa (Bhagalpur), and other places to the sea, and thence to the southern ports and Ceylon Island.[3]

Thus before the rise of the Mauriya Empire, a well-developed and flourishing civilisation had existed in India for at least a thousand years. Chandra Gupta's contribution to the material development of the country with a good system of central and local administration afforded a highly evolved economic organisation. The Gupta period was a golden age not only in cultural pursuits but also in economic advancement and prosperity. Fahein's account speaks of the general prosperity of the land. Likewise the accounts left by other travellers like Huen Tsang (or Yuan Chwang)[4] and inscriptions provide us a clear picture of the social and economic condition of the people on the eve of Arab invasion. Caste system had gradually become rigid, but foreigners could be absorbed in the fold of Hinduism. The hierarchy of caste had lost the professional division of labour. "Women of the upper classes took a prominent share in administration and in social life... The country, particularly the Madhya-desh, was thickly populated. The people were prosperous and happy... Wealth was, however, confined to a small group of people who were very rich indeed.. They laid out gardens and constructed tanks and wells for public use.. There were charitable dispensaries. The people, on the whole, were noted for their righteousness and benevolence."[5] People in general were well educated. The Universities of Nalanda, Uddanpura, and the Vikramshila in Bihar, Vallabhi in Western India, Benaras on the Ganges were centres of learning and culture where education was imparted on religion, sciences, literature and grammar. There were separate colleges for Vedic literature, Puranas, and Dharamshastras. At Ajmer and Dhar there were colleges of astronomy and other

1 *Arthshastra*, Book VIII, VII II; Chapter 2, 11, 16, 24, 28, 37 and Book VII, Chap. 12. Smith, *Oxford History*, pp. 143-4.

2 Nehru J.L., *Discovery of India*. p. 86.

3 *C.H.I.*, Vol. I. p. 214 foot-note.

4 Fahein, a Chinese traveller visited India and stayed 401-410 A.D.
Yuan Chwang ,, ,, ,, ,, 630-643 ,,

5. Srivastava, A.L., *Sultanate of Delhi*, p. 14.

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sciences like medicine, etc. Thus on the eve of Arab invasion, the social and economic condition of the people, who, though lacking in political unity and a keen sense of patriotism, was good and administration efficient.

3. An Economic Retrospect of the Sultanate Period. 712-1526 A. D.

Muhammad bin Qasim's descent upon Sind in 711 A.D. marks the first appearance of the Muslim invading forces over India's soil. It was motivated by lust for territory as well as iconoclastic zeal for the propagation of Islam. Muhammad bin Qasim defeated Dahir, destroyed Hindu temples and imposed Jazia or "poll-tax" upon the Hindus. But "the Arab administration did not prove an improvement upon that of Dahir so far as the lower classes of the people were concerned. There was no change in the treatment meted out to some of the tribes such as Jats and Meds. The members of these tribes were required to bring a dog when they came to pay their respects to the governor. They were forbidden to wear fine dresses, to ride on horses, and to cover their heads and feet. They were required to be branded on their head. They were made to submit to many other humiliations."[1] The Arab colonies were established in Southern India particularly in Malabar where the Hindu rulers unwisely permitted proselytisation of their population.

The weakness and indifference of the Caliphs and the strength of the Hindu rulers kept the country immune from foreign attack for over 250 years, during which period the Rajputs founded strong independent principalities and a reign of peace followed. The long freedom from foreign interference produced a feeling in the minds of the people that the country would never be threatened by an invasion. "A kind of narrow-mindedness became the characteristic of our people from the 8th to the 11th centuries of the Christian era."[2] The society became static, and the rigidity of the caste spelled disruption of the nation. Alberuni adds that the ancestors of the Hindus were not so narrow-minded as the present generation (11th century). Slavery came into vogue.[3]

People in general followed strict rules of morality and were honest in their dealings as is apparent from an anecdote mentioned by Maulana Nuruddin Uffi.[4] A Hindu merchant of Naharwala deposited 9 lakhs of rupees with a merchant of Balotra and died. This man returned the sum to the son of the depositor but the latter refused to accept it. Then Rai Singh Deo, a local prince of Sind

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1 Srivastava, A. L., *The Sultanate of Delhi*, Chap. II, p. 36.

2 *Ibid.*, p. 52.

3 Alberuni, *India*.

4 He flourished in the reign of Shamsuddin Iltutmish and having been educated in Bukhara, became a famous traveller. He was the author of *Jami-ul-Hikayat*.

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was approached for decision, who after great consideration, came to the conclusion that the money be utilised in some work of public utility. As such a reservoir was constructed. "It was the finest in the world, hitherto unsurpassed by all that the cleverest have executed to this day."[1]

On the eve of Mahmud Ghazni's invasion, India was famous for er wealth and general prosperity.[2] The mineral and agricultural

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1 Elliot, Vol. IV., p. 168.

2 Mahmud Ghazni invaded the temple cities of Nagarkot, Kanauj, Muttra and Thaneshwar and demolished and looted them, Asar-ul-Bilad of Zakaria Al Kazwimi gives a detailed description of the temple of Somnath and its vast hoarded wealth. People of 10,000 villages were attracted to the temple which had 1600 priests and 500 damsels who sang and danced, having been maintained by the endowments. The edifice was built upon 56 pillars of teak with lead lining. The shrine of the temple was dark and was lighted with jewelled chandeliers of great value & near it a chain of 200 maunds of gold was hanging. Nearly 50,000 people were butchered and many artisans captured and sent to Ghazni to enrich it with beautiful mosques and buildings. Mahmud obtained so much wealth from Somnath alone in gold, jewels and other valuables that no other king possessed equal to it. Mahmud captured the fort of Bhimnagar, Nagarkot or Kangra on the confines of India and obtained as bounty no less than 70,000 dirhams and 700,004, maunds of gold and silver vessels, rare vestments, the exact value of which is difficult to estimate. He also captured vast quantities of precious stones and pearls beyond all computation. An edifice fell into Sultan's hands which measured 30 cubits by 15, the size and covering of which was entirely made of pure silver.

Habib-us-Siyar of Khondamir (commenced in 1521 A.D.) was an attempt to collect universal facts of Indian history in one volume at the desire of Muhammad Al Husaini. In an extract of the work, Elliot (Vol. IV. p. 180) gives the description of Somnath in these words : "On the 10th of Shab'an on 416 H. (1025-1026 A.D,) Mahmud marched towards Multan with 30,000 cavalry. The soldiers were obliged to carry water and forage for many days, in addition, the Sultan loaded 20,000 camels with water and provisions.....So many exquisite jewels were found that a tenth part could not be contained in the treasury of a king...." There were 2000 Brahmans engaged in prayers. A gold chain weighing 200 maunds was hung from a corner of the temple and bells were fixed on it. Three-hundred musicians and 500 dancing slave girls were servants of the temple...."

There might be some difference in the figures of the above two works but the immense wealth belonging to the temple is apparent.

The wealth of the temples was in fact the reserve of the country. Instead of maintaining gold reserve in the banks as at present, temples were enriched, and thus in the international field of those times, the value of the credit structure seems to have been maintained.

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wealth had accumulated for generations in the coffers of the rulers as well as in the vaults of the merchants. The nobles and the merchants spent crores of rupees on the works of charity and temples, but the political structure of the country was weak. "The bureaucracy was corrupt and people in general enervated by a variety of debasing influences."[1] These factors allured Muhammad Ghazni to embark on his venture of loot and plunder. Even after these invasions and the establishment of the Sultanate of Delhi the country continued to be rich. Agriculture was our main source of wealth. The systematic methods of cultivation, copious rainfall and an improved system of irrigation, specially after the construction of a number of canals by Firoz Tughlaq, encouraged the production of crops like wheat, barley, cotton, sugarcane, oil-seeds and poppy etc. In Delhi, the Sultans had their own karkhananjats in which thousands of weavers were engaged for the manufacture of silk cloths and other textiles for the royal robe. In these karkhanas artistic work in gold and silver was also done. The private industries concerned the manufacture of textiles, calico-printing, liquors, arms, brass-work, paper, clay work, bricks, enamel work, embroidery, leather-work and shoe-making. In Bengal and Gujrat there were private karkhanas for the manufacture of textiles both for private consumption and export purposes.

During Turkish Afghan period, no comprehensive commercial policy was adopted by the government of the times, yet there was enough of internal and external trade which brought prosperity to the traders and merchants. "India had commercial relations with the outside world. She exported agricultural goods, textile manufactures, both cotton and silk and some other things such as tutenages, opium and indigo, etc."[2] Articles of luxury for the royal family and the nobles, horses, mules formed the chief articles of imports. The value of the exports far exceeded the imports and as such the country on the whole enjoyed a favourable balance of trade and the general belief ran that "the merchants of all countries never ceased to carry pure gold into India and to bring back in exchange commodities of herbs and gums." India maintained trade relations with Persia, Tibet, and Bhutan through its overland routes crossing the Hi nalayas.

Marcopolo, a Venetian traveller who began his travels in 1260 A.D. and visited India during the reign of Nasiruddin, gives a casual narrative of India. Southern India having remained immune from foreign invasions had accumulated gold in the temples and the treasuries. Speaking of Kashmir he says, "The climate is finely tempered, being neither very hot, nor very cold. There are a large number of towns and forts, tracts and strong passes so that the people

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1. Srivastava, A.L , *The Sultanate of Delhi*, p. 56.

2 *The Book of Marcopolo, the Venetian, concerning the Kingdom and Marvels of the East.* Vol. I. Chap. XXXI., p. 175.

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have no fear of anybody and have their independence with a king of their own to rule and to do justice..."[1] In Bengal people lived on flesh and rice. They grew cotton which was a great source of revenue and trade. Spices such as spikenard, galingale, ginger, and sugar were produced. Malabar was described as the finest and the noblest province abounding in great pearls. There were boats plied by labourers. Everybody went about naked. There were no tailors. The king wore only silk thread, strung with pearls and rubies, nearly 104 pearls being commonly used. Two thousand horses were annually imported at 500 saggies (coins of gold). In South India ginger, pepper, rice, vine, indigo, were produced. Gujrat also produced these things.

The country on the whole was rich but the population suffered from inequalities in the distribution of its wealth. The Sultans, the Hindu rajas, the nobility and the merchants carrying on private banking were very wealthy. The salaries of the civil and military officers were very high. The middle class also was rich and prosperous though the masses were in a miserable condition. The Sultans took one-third of the produce from the farmers who bore the greatest incidence of taxation. The general level of prices was very low. In normal times the farmer did not starve but when there was a famine "whether due to the failure of rains or some other natural calamity or due to destruction of crops owing to military expeditions, common people died in hundreds and, sometimes, in thousands."[2] During the times of Jalaluddin Khiljee, famine was of such severity that for want of food hundreds of people drowned themselves in the Jumna. In the times of Muhammad bin Tughlaq, a severe famine occurred in the Doab which meant a considerable loss of life.

Owing to the want of proper means of communication, the prices of all necessaries were not uniform throughout the country, much less throughout the period under review. During the times of Alauddin Khiljee prices in Delhi and other important capital towns of the provinces were cheap. He prohibited the manufacture of wine in his kingdom. He passed strict orders to grind down the Hindus by depriving them of their wealth and property "which fosters disaffection and rebellion." "The Hindu was to be so reduced as to be left unable to carry arms, to wear fine clothes and enjoy luxuries of life."[3] To effect these objects, two regulations were passed: (i) All cultivation big or small, was to be carried on by measurement at a certain rate for every biswa, and half of the produce was to be the land revenue; (ii) A tax for pasturage on milch cattle was to be levied from house to house. The revenue collectors and officers were to act most honestly. No Hindu could hold up his head high. They were reduced to abject

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1 *Book of Marcopolo*, Vol. II Chap. XVII. p. 324. Under Chap. XXXV he refers that there were 6 kingdoms with six kings, three being Christians and three Saracens. Possibly he refers to Abyssinia,

2 Srivastava, A.L., *The Sultanate of Delhi*, p. 495.

3 Elliot, Vol. III, p. 182.

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poverty and there was no sign of gold or silver in their houses. There was a regular arrangement of post from the military encampment to the capital. Roads leading to all directions were safe. The dealings of all bazar people were honest. A least attempt at dishonesty was punished. Many tanks were excavated. Alauddin passed 8 important regulations to control the price of provisions and necessaries of life in order to restrict expenditure of his army. Grain became very cheap. The regulation referred to the fixation of prices of grain. Wheat was sold at 7½ jitals per maund; barley at 4, rice 5, mash 5, nakhurd 5, moth 3, gram 5 jitals per maund. Ghee was sold at 2½ seers per jital; jaggery at at jittal per seer.[1] The scale of prices was maintained as long as Alauddin lived and it was a wonder of the times. "Grain never rose one dang whether the rains were scanty or abundant. . . .Prices were fixed for all commodities including horses and cattle."[2] Great pains were undertaken to secure the low prices of all things sold at the stalls in the market *from caps to shoes*; from combs to needle, etc. Merchants who attempted to undersell or cheat the customers in any other manner were meted out severe punishments; blows and cutting of the flesh from the haunches were the usual punishments for those who gave short weights. But in times of famines, during the times of Muhammad bin Tughlaq on the occasion of a famine grain. was sold for 8 to 10 jitals per seer.[3] Cultivated areas expanded during the times of Firoz Tughlaq though the statement that no village lay waste is an exaggeration. "In fertile tracts thriving villages inhabited by contented peasantry dotted the country at interval of two miles or less and in the neighbourhood of Delhi alone there were 1200 garden villages in which fruit was grown and which yearly paid to the treasury 180,000 tangas."[4] Unlike the reign of Alauddin Khiljee, the prices of commodities in the reign of Firoz were free from state interference and even then they were on the same low level. After Firoz's death, the condition of India was miserable. The obedience of the great nobles was regulated by their caprice or interest and they used and abused the royal authority as and when the occasion demanded. Timur's invasion again left India desolate. Delhi, in ruins and depopulated, was without a master. Famine and pestilence later followed. "So com-

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1 Ziauddin Barni, *Tarikh-i-Firozshahi*, in Elliot, Vol. III, p. 192. Khwaja Nizamuddin Ahmad, *Tabkat-i-Akbari*, Tr. Eng. by B. De. p. 174.; C.H I. Vol. III. Chap. II. p. 105. Mount Stuart Elphinstone, *History of India*, p. 398.

2 Elphinstone, *History of India* p. 399.

3 During the reign of Allauddin Khijee, over 20,000 Mughals captured in their encounter with Malik Naik Akhtar were made to stand in two rows for meeting their end from Chabutara Subhani in Amroha to Inderparastha. On that day so many people had collected to witness the scene, horrible, in character, that a pitcher of water cost 20 jitals. (Barni, *Tarikh-i-Firozshahi* in Elliot III, p. 198)

4 *C.H..I*, Vol III. Chap., VII, p. 174.

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plete was the desolation that the city was utterly ruined, and those of the inhabitants who left, died, while for two whole months not a bird moved wings in Delhi."[1] But those parts which were not visited by Timur were prosperous. Nicolo de Conte travelled in India in 1420 and spoke highly of what he saw of Gujrat and found the banks of the Ganges covered with towns amidst beautiful gardens and orchards and passed four beautiful cities before he reached Maarazia which he described as a powerful city filled with gold, silver and precious stones. Barbosa and Bartema who travelled in the first years of the 16th century corroborate these accounts. The former in particular describes Cambay as a remarkable city in a beautiful and fertile country filled with merchants of all nations and with artisans and manufacturers like those of Flanders. In 1441 Abdur Razzak[2] arrived at the port of Calicut during the reign of Saiyeds. This port was called Jerun. The traveller mentioned that merchants of "seven climates resorted to it from Egypt, Turkey, Azarbaijan, Iraq, Khurasan, China and Machim" At Calicut the traveller saw a black tribe and added : "The blacks of this country go about with naked bodies wearing only pieces of cloths called langots extending to above their knees. . . . In one hand, they bear a Hindi dagger and in the other a shield made of cow's hide, large as a cloud."[3] The traveller also visited Vijainagar and gave vivid description of the city and its administration which shows that though North India was split up into a number of principalities like that of the South, the administration under the Southern rulers was far above the required standard. "The grandeur of the city of Vijainagar, the splendour of the buildings, the wealth of the bazars, the volume of trade and the density of population have been amply attested by a series of witnesses beginning from the 14th century when Vijainagar was once a few years' old, down to the date of its irremediable ruin and also by survey of its existing ruin."[4] Goa was then a port of the Empire and the ruler drew sufficient income from the commerce passing through the ports of the Western coast.

In 1420 A.D. Nicolo Conti, the earliest foreign traveller (of the mediaeval times), an Italian visited the city in the reign of Dev Rai II and described that the city was 60 miles in circumference with a strong wall of fortification which was carried up the hills so as to enclose their valleys at the base. Abdur Razzak visiting it in 1443 A.D. mentioned that it had 7 fortified walls, one within the other, the fortress being in the centre with various markets being organised in the spaces between the various walls. The traveller continues, "The bazars are very long and broad so that the sellers of flowers do good business . . The jewellers sell their rubies and pearls and diamonds and emeralds

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1 *Ibid.*, p. 201, This is the English version of Badayuni's remark.

2 Abdur Razzak, the author of *Matlaus-Sadan* began his journeys in May 1441 A.D. from Kirman and stayed at Calicut for 18 days.

3 Elphinstone, *History of India*, Chap. VIII.

4 Smith, *Oxford History of India*, p. 308.

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openly in the bazars.... All the inhabitants of the country, high or low, even down to the artificers of the bazar wear jewels and gilt ornaments in their ears and around their necks, arms, wrists and fingers". This statement throws sufficient light upon the standard of life common in the state. Paes, a Portuguese, visited the city in 1522 A.D., and his work was translated by Sewell. Owing to the hills preventing a full view of the city, Paes found difficulties in estimating the size of the city. He writes, "It was as large as Rome", the houses are said to have exceeded a lakh in number. He considered the city to be "the best provided city in the world, not falling short of supplies and provision : like other cities." Paes saw one room—all of ivory, the chamber, the walls, from top to the bottom and the pillars of the cross timbers at the top had roses of flowers, of lotuses, all of ivory. Nuniz, another Portuguese, who wrote after 13 years, said that the utensils were all of gold and silver. He gives a good account of the port and its splendour. The king wore a jewelled cap and had a large army. Paes mentions that the empire was divided into 200 provinces. Dr. A. L. Srivastava maintains that the empire was divided into six provinces, which figure is reasonable and just. The mistake according to him is due to "Paes's confounding tributary vassals with the provicial governors." If the figure of the houses is taken to be correct, then the population of the city must be about half a million.

The ordinary people were trained to be utmost submissive. Like the rest of the country, the common people suffered from grievous tyranny and were exposed to great hardships. The great people were inordinately rich and luxurious. Women occupied a high position in social life and took an active part in social, political and literary life of the country. Child marriage was common. Polygamy was practised. Nuniz writes, "The king had women wrestlers, astrologers and sooth-sayers, besides women accountants, women clerks and women guards; and in music, dancing and fine arts they excelled men. Dowry was practised on a large scale. Women committed sati on the funeral pyre of their husbands." Domingos Paes observes, "In this city you would find men belonging to every nation because of the great trade which it has and the many precious stones there principally diamonds—this is the best-provided city in the world and is stocked with provisions like rice, wheat and grains. Indian corn and a certain amount of barley and beans, mung, pulses, horse-grain, and many other seeds which grow in the territory are the food of the people and there is a large store of these and very cheap."

The most important source of the Central Government under the Sultanate was the land revenue next only to plunder and booty obtained during war times. Besides the land revenue, the other sources of income were the taxes, the chief of them were taxes on imports which were 2½% on merchandise in general and 5% on horses. These taxes were doubled in the case of the Hindus, who had to pay Jazia besides. Other taxes included house-tax grazing tax, water tax and a number of other taxes. The state charged 1/5th of all

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minerals and 1/5th of treasure acquired by an individual." The state also claimed a share of unstamped bullion minted and found in an area conquered by the Muslims. All the property of men dying intestate and without heirs went to the state."[1] Presents from the nobles and the provincial governors were also sources of great annual income.

Hindus formed 95% of the population. The department of revenue was mainly their concern. They were also employed to look after the lower branches of administration. The khuts, chaudharis and mukkadims were all Hindus. Trade was monopolised by them. Merchants, traders, and business-men all came from amongst them. There were rich Hindu bankers who even financed some Turkish officers and nobles. Besides agriculture, they also adopted the professions of teaching and medicines, etc. The rest of the population consisted of the Muslims who were divided into two categories: men of the sword and men of pen. They were graded into khans, maliks, amirs, sipah-i-salar and sar-i-khail. Non-Turkish foreigners and their descendants mostly supplied men of pen. They supplied recruits to the clerical, educational and religious services. The educationists called the Ulema formed the most important group. These were clergymen, teachers, judges, and wielded a lot of influence upon the Muslim community as well as upon the government.

The roads were merely ruts, muddy paths or improperly maintained road-ways, ill cared for by the government. These were generally unsafe. Ghyasuddin Balban (1266-1287 A.D.) paid special interest to the roads in his empire. Roads were cleared of the dacoits and this meant a great impetus to trade and industry of the country. In the reign of Nasiruddin, the condition of the country was very satisfactory. Marcopolo, the Ventian traveller described the whole land to be "well cultivated and with villages well-flourishing." It is not much to be doubted that under such conditions the country might have been well connected with a system of roads. In the times of the Khiljee kings there was a regular arrangement of post from the military encampment to the capital. There was safety of roads in all directions.

The temple cities which attracted thousands of people from far off lands by devotees must have been connected by land routes. At least the roads of the Hindu period must have survived in their ruins. The rivers also provided water-ways inside the country. Marcopolo writing of Lakhnauti speaks of the dominion consisting of two parts and continues, "During the rains, the whole country is inundated, and, if there were no embankments, people go on boats."

4. Provinces

(*i*) *Malabar.* It extended in length from Kulun to Nilawar (Nellore), 300 parsangs up to the sea-coast. The curiosities of Chin and

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1 Srivastava, A.L., *The Sultanate of Delhi*, p. 445.

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Machin and the beautiful products of Hind and Sind laden in large ships, which they call junks[1] "sailing like mountains with the wings of the mountains on the surface of the water," were always arriving there. Its exports went to the Islands of the Persian Gulf, Iraq, Khurasan and Europe. Every year merchants of *Kais* Island landed there and nearly 1400 horses were annually imported from the Island of Bahrein and Persia, Harmuz and Kulatu. The price of each horse was fixed at 200 dinars of red gold and if any one of them sustained any injury or died during the voyage, its value was paid from the royal treasury. In the reign of Atabuk Abubakar, 10,000 horses were annually imported in Malabar, Khambayat, and other ports, priced at 22 lakh dinars which were paid out of the overflowing revenues of the state, the endowments to the temples and various other taxes. These horses on arrival were served with roasted barley and grain dressed with butter and boiled cow's milk. Speaking of the horse trade Marcopolo who visited the country 20 years before said, "In this country no horses are reared and hence the greater part of the revenue is employed in obtaining them from foreign regions."[2]

(*ii*) *Bula.* It extended from Khambayat (Cambay) to the borders of Malabar and was a prosperous province. It was 400 parsangs in length.

(*iii*) *Siwalik.* The prosperity of the province is clear from the fact that it contained 125,000 cities and villages. This was a very populated region, well supplied by all grains with plenty of irrigation facilities.

(*iv*) *Gujrat.* Commonly called Khambayat contained 70,000 villages and towns and the population abounded in wealth and luxuries. In the course of four seasons in the year, 70 different species of flowers were grown. Many plants and herbs grew wild. The province enjoyed a mild climate with perpetual spring. The winter cultivation was brought about through the moist of the air and dew and was called 'Barasi'. The summer harvest depended upon the rains. Cotton and grapes were other crops. In consequence of the abundance of the diamonds obtained by plunder after the conquest of Telinghana, they became so cheap that one weighing a mishkal could be purchased for 3 dinars. Sixty thousand loads of gold were annually despatched to Delhi and the army was raised to 475,000. Forty camels were used to convey daily reports to the capital from different parts of the province.

5. Economic State of Affair before the Invasion of Babar[1]

For a correct estimate of the actual state of affairs in the economic sphere we have to look back to the vivid details provided in the

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1 Elliot, Vol. III. p. 32. (Extract of *Tajriaytul Asar* by Abdulla Wasaf. Conditions up to 1328 A.D. described.)

2 *Travels*, Murray Edition, p. 296.

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accounts of the various travellers like Ibn Batuta who visited India in 1358 A.D., Nicolo de Conte who came in 1420 A. D., Abdurrazzak who travelled in the country in 1441 A.D., and Barbosa and Bartema who visited in the first quarter of the 16th century. Whereas these accounts provide instances of peace and prosperity in some parts of the country, it cannot, however, be denied that North India after the invasion of Timur and later after the down of the Lodi dynasty was a hot-bed of intrigue. Babar's own description of India presents a gloomy picture with casual spotlights which could not be avoided from the pen of a foreign invader who came with all the prejudices against this historic land. Barbosa and Bartema who visited the country on the eve of Babar's invasion have corroborated the accounts of earlier travellers in their tribute for Malabar, Calicut, Cambay Vijainagar, etc. Barbosa described Cambay as a remarkably built city, in a beautiful land and a fertile country filled with merchants of all nations and with artisans and manufacturers like those of Flanders.[1] Ibn Batuta who travelled during anarchy and oppression during Tughlaq's reign enumerates many large and populous cities and towns and gives a high impression of the state in which the country must have been before it fell into disorder, though insurrections were raging in most parts through which he passed. Babar in the beginning of the 16th century, although regards Hindustan with an unusual dislike of an invader speaks of it as a rich and noble country, abounding in gold and silver and expresses his astonishment at the swarming population and innumerable work men in every trade and profession. Vijainagar, Delhi, Madura were prosperous cities. To this account of the flourishing state of the country, it is natural to oppose the statement of Babar that in his time *elephants* abounded about Kalpi and in Karrah and Manikpur. If his statement is taken to be correct, it does not mean that these places were amidst forests which have since been cleared.[2] Along the sea-coast and in the interior of the country there was a regular trade.

As had happened more than once in history, the internal dissensions in the country made it an easy prey to a determined invader. "The old Sultanate of Delhi was reduced to a state of helpless importance under a series of weak and feeble rulers and its authority extend-

1 Elphinstone, *History of India*, Book VIII, p. 475.

2 Briggs, Farishta, Vol. 1. p. 216. Farishta likewise maintains that Akbar met a herd of these elephants near Karra & Manikpur to the east coast of Malwa. Writing two centuries before Ibn Batuta expressly says that Karrah and Manikpur were the two most prosperous districts in India. It is wrong to ascribe the disappearance of elephants to the improvement of the country. Small tracts of hills and jungles are enough to shelter the elephants who would spread over the territories cultivated for their food. Rhinoceros are still common in Rajmahal hills close to the populous lands of Bengal, while in the vast forests east of Berar, there are neither rhinoceros nor elephants. This shows that there is no connection between the residence of these animals and the absence of population. The disappearance of elephants was due to hunters as opined by Elphinstone.

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ed to a mere remnant of territory in the vicinity of the capital." [1] Besides the Kingdom of Delhi nominally extended from Salt Range and mountains of Kashmir to Bihar and from Gwalior to the Himalayas; there were other Muslim kings and Hindu Rajas north of the Narbada who had very extensive powers. Though the kingdom of Jaunpur had been subdued by the Lodis at this time, the country was in a state of revolt under a king of its own. Bengal, Gujrat and Malwa were three powerful independent kingdoms. Rana Sanga taking advantage of the civil wars of Malwa had added several of its provinces to his dominions. The North of India retained much of its Hindu organisation. Its system of village and district organisation, its government, its division into numerous chieftains or petty local governments, and the adherence of the people to their immediate rule than to the central government, were sure signs of decay of the empire. Except at Delhi or Agra the inhabitants everywhere fortified their towns and prepared to resist Babar's invasion regarded as a temporary inundation, that would speedily pass off. Every man in authority raised troops and prepared himself for the eventuality. Those who held delegated authority or Jagir, being generally Afghans, were consequently hostile to the new state of things. They soon came to an understanding among themselves and took measures for mutual co-operation. "The people of the country were told that they had everything to dread from their barbarous invaders; they would be robbed off their property and their wives and children would be dishonoured, their templas profaned or destroyed." [2] Under such circumstances Babar had to face a difficult situation. The inhabitants in terror fled before him so that no provision could be procured for man or beast. The villagers fled to wastelands and infested the highways, plundering and robbing on every side. The roads became impassable.

There was little uniformity in the political situation of different parts of the vast empire; hardly any law could be regarded as universal. Each kingdom, each province, each district and every village was governed in ordinary matters by its peculiar customs. There was no regular course of law spread over the kingdom, Hindu cases were decided by Panchayats and those of the Musalmans by the Qazi, especially those concerning marriages, divorce and religion. Besides the land tax, there were other sources of revenue. There were transit duties on the merchandise transported from one part of the country to the other. There was a shop tax in towns, and Jazia was charged from the non-Muslims.

The Hindu society was divided into four castes—Brahmins, Kshatriyas, Vaishyas and Shudras. Banias, the most rigid observer of laws, lived in cities and engaged themselves in trade. Their propensity to trickery made them dangerous to commerce.

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1 Edwardes and Garrett, *Mughal Rule in India*, p. 1. (Saltanat Delhi ta Palam)

2 Erskine, *History of India*, Vol., I. p. 443.

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The Portuguese, the pioneers of eastern adventure, who discovered the oversea route to India where attracted to the Malabar coast long before the invasion of Babar, where they found wealthy cities engaged in commerce with Persia, Arabia and the opposite shores of Africa. From Malabar they brought back pepper, spices and calicoes which derived their name from Calicut.

The decisive battle of Panipat in 1526 A.D. laid the foundation of the Mughal empire. Though Babar and Humayun found no time to bring about economic reforms, their successors from Akbar to Aurangzeb took sincere steps to consolidate the Mughal empire. The struggle for the development of trade and industry under the the first six Mughals was not based upon regular commercial policy, for, "none of the four great emperors who figure in the book had any constructive policy for encouraging or extending the commerce of India".[1] However, various elements constituting the structure of labour supply, finance and organisation, localisation of industries, marketing facilities and transport, Government control, and the general characteristics of its exports and imports, form an important subject of study in the domain of Economics and Geography of the period under review. While the problems which confronted the Mughals necessarily differed in many respects from those which face the modern economist, yet there were many similarities. Economic evolution goes through much the same stages whether it be a question of the mediaeval times or of the present generation.

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1 Lord Meston's Foreword in the *Commercial Policy of the Mughals* by Dr. D. Pant.

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CHAPTER 2

LAND AND POPULATION

1. The Country

India of today does not connote the same sense as it did under the first six Mughals. The word "India" was generally restricted to the tract of land lying between the Persian Gulf and the Malaya Peninsula. "The extensive area was further subdivided by geographers into various regions, the mouths of the Indus and the Ganges, being commonly taken as dividing points so that the 'second' or the 'middle' India of some writers of the 16th century corresponds roughly to the modern meaning of the word."[1] Till recently the modern Indian Empire included Burma also but having been an independent country during the Mughal age, it has been excluded from consideration and treated as a foreign land,[2] though of course Indian States have been included. "India both on this side and beyond the Ganges", says De Laet, "was known even to the ancients, specially after the time of Alexander the Great, as is shown by histories of exploits composed by illustrious writers".[3] The author places reliance upon the opinion of Pliny who regarded India as the land inhabited by the Indians, the race from mountains of Emodus and bounded on the west and the south by Ocean. Pliny calculated the Eastern Coast including the indentations to be 1875 miles. According to Erostosthenes (296 B.C. to 196 B. C.) the learned President of Alexandria (240 B. C. to 190 B. C.), the South Coast measured 2475 miles as far as the Indus which was the western boundary of India.[4]

The present work embodies an economic account of the country lying between the sea and the Himalayas and extending up to Biluchistan in the West and Chittagong in the East. At the opening of the per-

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1 Moreland, *India at the Death of Akbar*, p. 1.

2 Moreland takes the same view.

3 De Laet, *The Empire of the Great Mogol.* Eng. Tr. by Hoyland and Banerjee p. 1.

4 The observations of Erostosthenes on India were based on materials supplied be Patrokles, an officer in the service of Selukas Nikator and Anticlius I. He speaks of the shape of India as rhomboided, its four sides being composed of the Indus, Himalayas, shores of the Southern and (Western) and Eastern seas. He wrongly supposed that the coast measured 2183 miles. De Laet placing reliance upon Erostosthenes regards it to be 2475 miles though really it is 1350 miles. The eastern coast from Cape Camorin to the mouth of the Ganges measured according to Erostosthenes 1838 miles, according to Do Laet 1875 miles, though actually it is 1350 miles, The distance from the Himalayas to the southernmost point is 1800 miles. The same view is held by De Laet.

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iod under review the bulk of the country was divided between the Mughal Empire in the North, the Hindu kingdom of Vijayanagar in the South and the Muslim Sultanates of the Deccan. The ruling dynasty of Vijayanagar, though broken up after the battle of Talikot in 1565 A.D. continued even after Akbar's death under the current name of "Narsingha". The Muslim kingdoms of the Deccan formed at the break-up of the Bahmani Empire, founded by Hasan Gangu continued till the closing years of Aurangzeb's reign. Ahmedabad was claimed as a province of Akbar's dominions : Khandesh was also, though incompletely, included in the Mughal Empire by Akbar. Golcunda and Bijapur were separate independent states until Aurangzeb's reign. The dominions of Babar at the time of his death were very extensive stretching from River Amu to Bihar.[1] Humayun inherited a vast territory from the Oxus down to the province of Balakh, Qundus, Badakhshan, Kabul, Ghazni, Qandhar, Punjab, Multan and Bihar.[2] But "the kingdom had been hastily acquired and its provinces loosely knit. The scheme of the government was still saifi (by the sword) and not qalmi (by the pen)".[3] He conquered areas and lost them till he was driven into exile by Shershah.

Akbar succeeded as a boy to a much smaller area than his grandfather had held, but left at his death an empire extending from Qandhar to the Bay of Bengal and from Hindukush to the Deccan up to the upper course of the Bhima.[4] During the reign of Jehangir

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1 *C. H. I.*, Vol. IV. Chap. I., p. 9.

According to Erskine, Babar's dominions stretched from the Amu to Bihar beyond the Hindukush range, down to Badakshan, Kunduz and all the districts to the south of the Oxus as low down as the borders of Balakh. To the south of the mountains, he had the kingdom of Kabul, Ghazni, and Qandhar and much of the mountainous country of Hindukush and Ghore or Parapamisan ranges inhabited by Afghans, Aimaks and other tribes as well as the hilly tracts and desert tracts to the South up to Biluchistan, in all of which the tribes, though self-governed, acknowledged his suzerainty. In the Upper and Lower Sind, the Khutba was read under his name, but though his supremacy was acknowledged he had little power. To the east of the Satlej, the rich provinces of Hindustan lying between that river and Bihar on one side and the Himalaya mountains and the countries of the Rajputs and of Malwa on the other were subject to him, the western boundary being nearly a line marked by the fortresses of Biana, Ranthambhor, Gwalior and Chanderi. Erskine, *History of India, Babar and Humayun*, I p. 426-7.

2 Banerjee, *Humayun Badshah*, Chap. III, p. 30.

3 *Ibid.*

4 *Ain* I. Blochman. p. 7. *Ain* describes Hindustan as enclosed on the East and West and South by the Ocean, but Ceylon, Achin, Malacca, and a considerable number of Island are accounted within extent. To the North is a lofty range of mountains, part of which stretches, along the

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who added Mewar and Kangra to his patrimony, the extent of the empire included Punjab, Bengal, Malwa, Deccan and Gujrat. "The

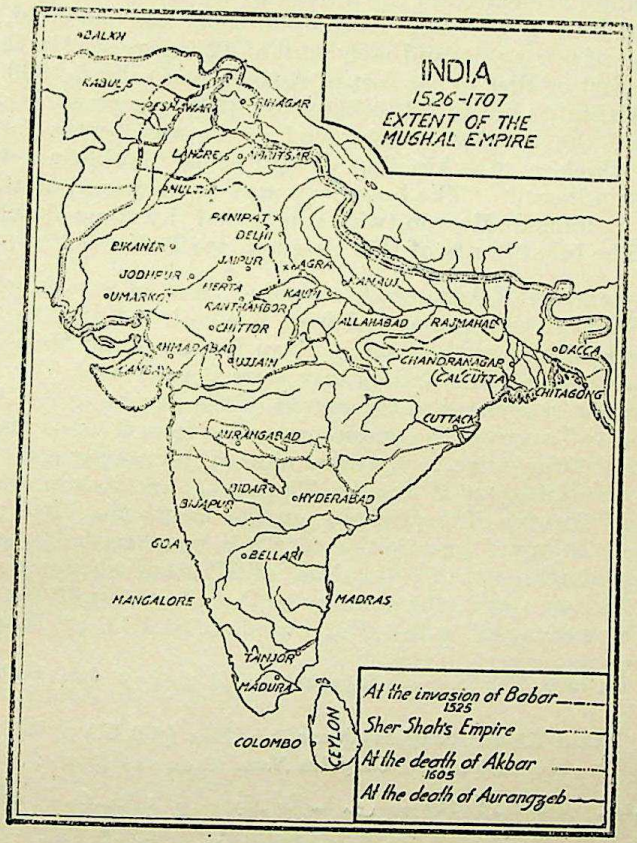

Fig. 1.

length is north-west to south-east; from Qandhar to Lahore 350 kos, or about 800 miles; from Lahore to Agra 320 kos or 752 miles; from Agra to Patna 300 kos or 680 miles; in all 1270 kos or 2912 miles. The breadth in all is north-east to south-west from Hardwar to Dwarka 630 kos or about 1500 miles."[1] The Southern limits under Shahjehan were fixed by Bijapur and Golcunda, the north-west by Balakh and Badakshan, the East by Bengal and the West by Surat. In 1635,

uppermost limits of Hindustan, and its other extremity passes into Tuckestan and Persia. An 'intermediate region lies between this and the vast frontiers of China, inhabited by various races such as Kashmir, Great and Little Tibet, Kathiawar and others,

1 William Foster, *The Embassy of Sir Thomas Roe to the Court of the Great Mughal*, Pt. II. 1615 1619. The mileage is not correct. It is nearly 2100 miles and not 2912 by actual measurement.

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Bijapur,[1] and in the following years Nizam Shah's dominions were included in the Mughal Empire and so was Little Tibet. The extent of the empire is clear from the following description, "In length from the Lahiri Bandar to Sylhet close upon 2000 kos padshahi, each kos consisting of 500 cubits and each cubit of 42 fingers; and in the breadth from the fort of Bist to the fort of Ausa (Orissa) about 1500 kos, comprising within its limits 22 subhas and 4250 parganas."[2] According to De Laet the country was bounded on the west by the Indus on the shore of which was the kingdom of Sind whose inhabitants were called Abinds (Sindhees). "The boundary may be reckoned as the frontier of the kingdoms of Macron (which is called by some Gotche Maquerons). The inhabitants of this kingdom are Baluchis."[3]

The empire of Aurangzeb exceeded that of any Mughal king.[4] From Ghazni to Chittagong and from Kashmir to Karnatic, the people acknowledged him as their king. Even Laddakh and Malabar accepted his suzerainty.[5] The French travellers Bernier and Tavernier have made passing references to the extent of the empire under Aurangzeb. According to Tavernier the empire extended from the mountains on one side of the River Indus to the other side of the ranges: and on the East touched the Kingdom of Arakan, Tipperah, and Assam; on the West Persia and Tartary of the Uzbeks; on the South the kingdom of Golcunda and Bijapur; and in the North it reached the Caucasus having on the north east, the kingdom of Bhutan 'whence comes musk' and on the north-east, the country of the Chegathy of the Uzbeks.[6] Arakan was annexed to the Empire in 1670 A.D. by Shaista Khan

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1 In 1635 The king of Bijapur agreed to pay two lakh pounds of tribute.

2 Zahid Khan, *Shahjahah Nama* Per. Mss. (S,B.U.) p. 197.
The original text in *Shahjahan Nama* reads as follows :

"طول ایں مملکت از لہری بندر تا سلہت دو ہزار کروہ شاہی و ہر کروہی پانچ ہزار گز و ہر گز چہل و دو انگشت و از قرار متعارف چہار ہزار کروہ رسمی و از قلعہ ست نا قلعہ او سہ ہزار و پانصد کروہ . . . بنابر اطلاع بر کیفیت ملک و بدوست و ضبط ایں سہاد اعظم از ہست وزو صوبہ قراردادے۔"

Rev. Edward Thomas, *Resources of the Mughal Empire*, p. 27.

3 De Laet, *The Empire of the Great Mughal*, Eng. Tr. Hoyland and Bannerjee, p. 4.

4 Sujan Rai, *Khulasat*. Per. Mss. (S.B.U.), p. 6. Original text: پس فراخ کہ ولایت دیگر بہ عشیراں نہ رسد) So extensive that other countries would not be even one-tenth of it'.

5 Bakhtawar Khan, *Mirat-i-Alam*. Per. Mss. (S.B.U.), p.1049.

6 Tavernier, *Travels in India*, Ed. Ball. Vol. I, p. 321-2.
De Laet, *Empire of the Great Moghal*. p. 4. Speaking of India in 1631 A, D. the author adds : "The Empire of the Great Mugol is of such an enormous size that some writers have declared that a caravan can scarely cross it within the space of two years"

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the then Governor of Bengal. Golcunda was added to the empire in 1681. According to Bernier it required three months to go from Golcunda to Ghazni. He says, "The distance must be five times from Paris to Lyons.". Yet another well-known historian, Bakhtawar Khan, in his *Mirat-i-Alam* gives the extent of the empire in a unique way in the following words : "Length from Port Lahri Bandar in Thatta up to Thana of Vindhyachal in Bengal 994 kos Badshahi; 1744 kos common. Each royal kos measures 5000 yards and each yard is 42 fingers. Two royal kos is equal to 3 common kos. . . and calculating every stage at 12 kos, the usual travelling distance in Hindustan in the whole length is 145 stages or a journey of 4 months and 27 days. The kos or 1176 common kos, at the rate of 12 kos a stage, the whole breadth of the whole empire is from the Frontier of Tibet to the delightful valley of Kashmir to the fort of Sholapur. . . a distance of 672 breadth is 98 stages occupying a period of 3 months and ten days. The whole country was well populated. It was divided into 19 provinces and had 4440 parganas, the total revenue of which amounted to 9 Arabs, 24 krores, 17 lakhs, 16082 dams.

The Mughal empire included a number of smaller states, some of them being of great economic value. The Portuguese had established a sovereign power in Goa, Daman and Diu, the English too had a few factories, such as Surat, Bombay, Madras, Chittagong, etc. The Zamorin of Calicut occupied an independent position, sometimes showing open hostility but always giving secret support to the pirates. There were a few Hindu petty states situated between Golcunda and the Mughal province of Orissa.

2. Geographical Environments

1. *Physical Features*

The physical features of India were what they are practically today. "The first point to notice about India is the extreme physical diversity of the various areas included under that term"[2] "The country was divided into four divisions : (a) the Mountainous region of the Himalayas which borders India on the north, east and the west; (b) the Decan Plateau: (c) the Indo-Gangetic plain lying between the above two areas extending from the valley of the Indus in Sind to that of the Brahmputra in Assam; (d) the region of the Coast-strips on the east and the west. The North Himalayan mountain region consisted of three ranges running from east to west diverging from the plateau

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The Englishman Mr. Terry gives it the following boundaries : "In the East the main kingdom of Maugh. (natives of Arakan), in the west partly Persia, partly the ocean, in the North, the Caucasus and Tartaria, in the South the kingdom of the Deccan, and the Bay of Bengal." He also declares that it is divided into 37 large provinces which in former years were mostly separate kingdoms.

1 Bakhtawar Khan, *Mirat-i-Alam* Per. Mss. (S.B.U.) VI, p. 1050 Extract from Elliot, Vol. VII., p 162-4.

2 Vera Anstey, *Economic Development of India*, Chap. II, p. 11

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of Pamir, separated from varying distances, 150 to 250 miles wide. The great range of the Himalayas, 1500 miles in length and 18000 feet above the sea-level consisted of some of the highest peaks of the world including even the present Mt. Everest which was then not actually known. The eastern offshoots, 12,000 feet above the sea-level, consisted of only one pass, the Ann Pass, while the Western offshoots, which were only 2500 to 4000 feet above the sea-level, consisted of many passes including the famous Khaibar Pass which has been the scene of so many inroads into this country. The geologists maintain that the Himalayas have once been the venue of a long sea, called the Sea of Tethys as borne out by some of the remains of aquatic fossils found upon the heights of the mountains. "In the north-east, the ranges have always formed an almost impenetrable barrier, whilst in the north-west climatic and political changes have transformed the former passage for invading hordes into a preventive of land communication with India. It was this fundamental geographical unity that tempted each great monarchy that arose to extend its sway over the whole area."

Between the Indus and the Ganges stretched out a long and fertile plain characterised by the fertility of its soil, regularity of rainfall in varying degrees and a smooth level allowing rivers of the snow-fed mountains to flow slowly and steadily. This was the great agricultural belt and produced wheat, barley, rice, maize, millets, sugar-canes, fibre products like cotton, jute, hemp, and all tropical and subtropical fruits like grapes, apricots, guavas, plantains, melon. Mango was a very common fruit grown in the rainy provinces. Kabul had long been famous for the various fruits, dried and green. Sugar-cane was grown in the eastern and the central plains. Some of the northern rivers proved of great use for navigation and commerce under the Mughals.

The Ganges-Brahmaputra system with the tributaries of the Indus—the Jhelum, Ravi, Chenab, Satlej and Beas and those of the Ganges and the Brahmaputra, like the Jumna, Kali Son, etc. differs in many respects from that of the Deccan tableland which formed a big triangle characterised by the lava soil, important for the production of cotton, and varying in height from 1800 to 2000 feet above the sea-level. The tableland has been crossed by the Narbada and the Tapti flowing towards the Arabian Sea and the Godavari, Mahanadi, Krishna, Kauveri, etc. flowing towards the Bay of Bengal. The region is very old geologically. Its rivers are fast and unfit for navigation. The east coast-strip 200 miles in width with the deltas of the above named rivers and the West coast strip, only 40 miles in width, with rich soils and copious rainfall have important regions, both for their economic wealth as well as for the contact with the world out

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1 *Ibid.*, p. 17.

2 Abdur Rahim, *Tuzak-i-Babri* (*Waqai-Babri*. Per. MSS. (S. B. U.) pp 150 1.

3 Sujan Rai Khatri, *Khulasat.* Per. MSS. (S.B.U.), p. 7.

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side. Whereas the rainfall on the East coast is 50", on the west coast it is over 100 inches.

With a brief sketch of the physical divisions, a few points which relate to the recent geological changes need a passing reference :—

(i) The river Hakara which acted as a territory line between Sind and Hind dried up in the 18th century. It used to flow through the Bahawalpur State and the region which is now the Sind Desert. The river existed up to the reign of Aurangzeb.[1]

(ii) In the 16 and 17th and centuries, the Narbada had a delta but it is now disappearing.[2]

(iii) Formerly the Sutlaj and the Jumna flowed through Rajputana. The lost river, the Saraswati of the Hindu tradition was probably the river which occupied the bed of what is now Sotar or Ghaggar now flowing past the neighbourhood of Nahan. The Jumna used to flow westward from Karnal, North of Delhi. Both these joined near Suratgarh in Northern Bikaner and formed the Hakara described above.. This river flowed southward straight to the sea into the Runn of Kutch.[3]

(iv) The Sutlaj was a separate river flowing independently of the Indus in the early years of the Christian era. Now it joins the Beas and its old channel is still recognisable between Sirsa and Umarkot.

(v) Two centuries back the Ganges and the Brahmuputra were separate rivers, 150 miles apart. Then the Brahmputra flowed east of the Madhopur jungles and joined the Meghna east of Dacca. But as a result of upheaving in recent times the Brahmaputra changed its course from east of Madhopur jungle by 100 feet.[5]

(vi) The confluence of the Son with the Ganges is near the present cantonment of Dinapur, 12 miles above Patna. In the reign of Mauriyan kings, there were some harbours on the Son and the Ganges whose remains of the brick embankments are found along the old course of the Son.

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1 *Oxford History of India*, Chap. [illegible]. p. 11.

2 *Imperial Gazetteer of India*, Vol. IV pp. 152-4 G.R.Sharma, *India*, pp 15-19.

3 *Ibid*.

4 & 5 Dr. G.R.Sharma, *Economic Geography of India*, pp 11-12.

6 Smith, *Oxford History of India*, Chap. XIII. p. 444.

In the reign of Harsha (606-647 A.D.) Muzirus (a port on the Coromondal Coast),.... and another Yawan colony at Kaviri Paddam or Puhar on the mouth of the Kauveri, doing excellent trade have long since disappeared and lie buried under the vast mounds of sand. According to Mr. S.K. Aiyangar, the destruction took place in the first quarter of the third century at the latest.....:., p. 461.

Ancient Tamil literature and the Greek and the Roman authors prove that in the first two centuries of the Christian era, the Chola ports enjoyed active trade with the East and the West.

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(vii) The Eastern Coast strip formed by the Coromondal Coast has been considerably raised resulting in the disappearance of the ports which were doing good trade.

(viii) The silting of the Runn of Kutch has destroyed the importance of Kathiawar ports like Lahri Bandar.[1]

2. *Climate and Rainfall*

The climate of India like that of any other country has largely been dependent upon its physical features. In climate and rainfall, there have been practically no changes since the times of the Mughals. In June, the sun's rays falling directly upon the Tropic of Cancer the whole of the country specially the North developed an area of low pressure resulting in the inrush of sea-winds from the Bay of Bengal and Arabian Sea. These together made up the summer monsoon known as the Bay of Bengal branch as well as the Arabian Sea branch. From Bengal to Peshawar there is a gradual diminution of rain from 80″ to less than 5″. The force of the Arabian Sea branch is neutralised on the Western Ghats, the whole of the Deccan being in the rain-shadow area receives nearly 30″ of rain. Sind and the Western Rajputana having no mountains to check the course of the monsoon go rainless. Winter rains in the country are experienced either in the Northern Sarkars or by the side of the Himalayas. "The sun is oppressive in the Indies (meaning India)", says Bernier, "for eight months if there is no rainfall in July." He continues, "The rainfall is not the same for two years together. But sometimes they commence or terminate a fortnight or three weeks sooner or later, and one year more abundant than the other. Sometimes even two years go without rain, with serious consequences."[2] In this long narrative Bernier supports the climatic and weather conditions prevailing in the country in the modern period. After the cessation of rains in October the inrush of winds moved towards the South giving place to northerly cold winds in the country. People availed themselves of a favourable season for the coastal voyages or travels in the East Indies but at times the vagaries of the monsoon took a heavy toll of life. Even Europeans met the same fate.[3]

The summers of India were known for their oppressive heat. Babar writes, "The year was a very hot one, violent and pestilential winds struck people down, in heaps together masses began to die off." While expressing his dissatisfaction with the customs, manners, and social life Babar spoke of the pleasantness of the weather in these words: "Its air in the rains is very fine. Sometimes it rains 10, 15, 20 times a day; torrents pour down all at once and rivers flow where no water had been. While it rains and through the rains, the air is remarkably fine, not to be surpassed for healthiness and charms. The fault is that the air becomes very soft and damp. Not only in the rains but

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1 Moreland, *Akbar to Aurangzeb*, p. 41.

2 Bernier, *Travels in the Mughal Empire*. Eng. Tr. by Archibald Constable, p. 431.

3 *Ibid.* First Letter written to D.E.Merveilles at Delhi in 1664.

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also in the cold and hot seasons, the air is excellent. At times, however, the North-west winds constantly gets up laden with dust and earth. It gets up with great strength every year in the heats under the bull and twins...The weather is not intolerable as in Balakh and Qandhar and not for half so long.'[1] Abulfazl in praise of the season maintains that "during the rains which extend from the close of the sun's stay in the Gemini to his entry into the sign of Virgo (middle of June to end of August), the elasticity of the atmosphere is enough to transport the most dispirited, and lend the vigour of youth to old age."[2] Again he maintains : "In the autumn and throughout the depths of winter the plains are green and the tree in foliage."[3] The same view has been expressed by Farishta, Inayat Khan and Sujan Rai Khatri.[4] And even the writers of the early Sultanate period held the same view.[5]

Farishta clearly maintains the existence of four seasons well marked in India and Inayat Khan clearly follows him. The latter speaking of the winds adds : "In the month of Urdi-Bahisht, the country has easterly winds whereas in Khurdad it enjoys westerlies." While laying emphasis on three definite seasons, he maintains that Lahore was cooler than Shahjehanabad and cooler still than Akbarabad.[6]

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1 Abdur Rahim, *Tuzuk-i-Babri* Per. MSS (S.B.U.) pp 207-9 Elliot Vol. IV. Chap. I. p. 14.

2 Abulfazl, *Ain.* Eng. Tr. H.S,Jarrett. Vol. III. p. 7. Abulfazl maintains India to be "unequalled in its climate, its rapid succession of the harvests and the equable temperament of its people".

3. *Ibid.*

Abdulla Wasaf in his *Tajriatul Asar* (1328 A.D.) maintained the same view. He wrote, ''India's air is purer than purity itself; its delightful plains resemble the garden of paradise....The land is distinguished from all parts of globe by its extreme temperateness and by the purity of its water and air....Indeed the charms of the country and the air, together with the variety of its wealth, precious metals, stones and other productions are beyond description'. Elliot, Vol. III, p. 28.

4 Sujan Rai Khatri, *Khulasat.* Per. MSS. (S.B.U.), p. 6, Enamoured of the beautiful climate and beautiful scenery during the rains he writes:

بہار سبز جہاں سیر گلستاں سیر است
بہر کجا نگری تاباشش سیر است

"(the country) Spring green, all land green, is a garden of pleasure: Wherever thou seest, everywhere is green up to the sky".

Farishta, *Tarikh-i-Farishta.* Per MSS, (S.B.U.) p. 256. He mentions four seasons.

Inayat Khan, *Shahjehan Nama.* Per. MSS. (S.B.U.) p. 256.

He speaks of three seasons in Delhi.

5 See Note under 3 above.

6 Inayat Khan, *Shahjehan Nama:* Per. MSS. (S.B.U.) p. 256. This statement is even true today as explained from the following figures:

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3 . Density of Population

That no records exist of the population of India in the 16th and 17th centuries based upon a regular or even an irregular census, is a sad commentary upon the efficiency of Mughal administration from the modern stand-point. The comparative statements made by individuals are full of errors. The Indian historians having as they possessed an imperfect idea of a comparative study told us some thing of the relative density of population in different parts of the country. Casual remarks by various travellers mostly or practically all Europeans about the population of cities or provinces ar attempts at comparison with French, Italian or English cities and provinces and as such fail to give any correct idea. Even if we believe their statements, the trouble arises that the population figures of the European cities and provinces of the period are not available. It will certainly be a mistake to compare our figures of the 16th and 17th centuries with the modern European figures Then the population of France was practically one-half of the present size while that of England only one-eighth. The ideas of a dense or sparse population were judged by European travellers on that standard The population of Vijainagar on this standard was very dense. Near about 1400 A.D., Conti said, "The numbers of the people exceed belief." The Persian envoy Abdur Razak who visited Vijainagar at this period declared that empire contained a population correct idea of which was difficult to give. A hundred years hence, Paes said, "The whole country was thickly populated with cities, towns and villages." The famine of 1540 A.D. which was very severe on the Coromondal Coast must have much reduced the population. The remarks of Jesuit missionary in 1597 show that Paes' description was the chief basis for his observations. The pearl industry of Manaar attracted 60,000 men. The description of Pimenta and

Lahore Jan.Temp 68.5 Max. in June 107.1 F.
Delhi Jan.Temp 70.0 Max. in May 104.0 F.
Agra Jan.Temp 72.9 Max. in May 105.0 F.
(Figs. taken from *Indian Year Book* 1940, p. 334.)

The above figures of max. and min. temperature support the statement of Bernier who maintained that owing to excessive heat no one wore stockings and people slept in the open after watering the courtyards. *Bernier Travels in the Mughal-Empire* 1656-68, p. 240. Letter to Do la Mothelioaiyer, Delhi 1.7.1663.)

1 Nurul Huq, *Zabt-at-Tawarikh*. Per. MSS. (S.B.U.), p. 94. The author maintains that the advantages of irrigation works of Firoz Shah reached to 160 crores of creatures. Actual words are دفع آں بہ عموم خلایق تا پنجاہ صد کرور میرسد , This figure must include all living creatures and not only human beings.

Francois Catrou, *Hist. of the Mughal Dynasty*, (Eng.), p. 72. Agra has been pointed out to be a city of 9 miles in length with a population of 60, 6000.

2. Moreland, *India at the Death of Akbar*, p. 11.

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Simonsa shows that there were numerous towns in the country, and as such, the narrow strip of land below the Western Ghat must have been densely occupied as affirmed by Barbosa amongst the European writers. Half a century after the death of Akbar, the French traveller, Thevenot, found "a dense population from Aurangabad to Golcunda eastard to Masulipattam."[1] M. De Faria Y. Sousa, writing in the later part of the 17th century said, "The Heathens say that God granted them particular prerogatives or blessings to five kingdoms : to that of Bengal infinite numbers of foot, to Orixa (Orissa) elephants; to Bissnagar, people skilled in sword and buckler; to Delhi, abundance of towns; and to Con., in numerable horses ' Abundance of labourers at the diamond mines, as observed by Tavernier, suggests that the population must have been very dense in this part. Tavernier speaks of Manori tribe under four groups, each consisting of one lakh of men engaged in the transport of merchandise from one part of the country to another and living in tents. He continues, "They live only upon the transporting of merchandise from one country to another. The first of the tribe carries corn, second rice, third pulse and the fourth salt (which they fetch from Surat and Cape Camorin)".[3] Speaking of the Deccan kingdoms in the 15th century, the Russian monk, Niketan observed that the land was overstocked with people. Similar testimony is forthcoming of the Mughal times. Gujrat was thickly populated. "The new capital of Gujrat continued steadily to grow in size and population for every two centuries and the work of adoring it with architectural monuments worthy of its importance was carried out with unremitting energy both by the Sultans and the nobles. By the end of the 16th century, therefore, Ahmedabad came to be regarded as the largest of the cities of India."[4] The author of *Haft Aqlim* described Ahmedabad as "a unique city in the whole of India in the matter of neatness and flourishing condition and superior to other cities in the excellence of its monuments."[5] Ali Muhammad Khan, the author of *Mirdt-i-Ahmadi*, called it the 'beauty of cities' (*Zeenat-ul-Bilad*,), while Abul Fazl mentions it as "a noble city in the high state of prosperity." Of the population of Ahmedabad, no definite information is available. That the city must have been larger than any capital city in North India is evident from the accounts of historians as well as from the large number of suburbs. The arbi-

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1 *Ibid.* p. 13.

2 Stevenson's Translation of the *Portuguese Asia*, p. 415. Con is most probably Kutch according to Moreland and Bisanagar according to Moreland is Vijainagar.

3 Tavernier, *Collection of Travels*, II, p. 28.

4 M.S. Commissariat, Chap. *History of Gujrat* IX. p. 101. The author goes so far as to say that the city came to be regarded as the finest perhaps even in Asia.

5 M.Abdul Muqtadir, *Haft Aqlim*. Per. Tr. *Bibliotheca Indica*, pp, 86-87. (The work was completed in 1593).

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trary figure of two to three million or so as given by T. C. Hope, in his *Architecture of Ahmedabad* (1866) is not based upon any authority. Likewise the population figures as adduced by James Forbes in his *Oriental Memoirs* (1781) are not reliable.[1] In the palmy days of the Sultanate, the city could boast of 360 to 380 puras each of which was surrounded by a wall.[2]

Barbosa described Gujrat as a prosperous and populous part of the country in the first quarter of the 16th century. Pimenta, Simonsa, and Barbosa speak of a dense population below the Western Ghats and the surrounding regions. Della Velle referring to his journey from Surat to Agra speaks of Surat as "very populous as all other cities of India which everywhere abound with people." Finch came across a city and 7 great towns and three other towns from Surat to Burhanpur and his account leaves an impression of a populated part of the country. The other route through Rajputana, was sparsely populated up to Ajmer. The route from Agra to Lahore lay through a dense population and the same was true of the route from Lahore to Multan and down the Indus to Bhakkar, but from Bhakkar onwards, most of Sind was desert. There was an alternative route across the desert from Ajmer to Thatta but the country was sparsely populated or inhabited by nomads. Tavernier makes a reference to a road from Agra to Dacca as lying through a tract with many inhabited cities full of artists and weavers. The route from Jaunpur to Allahabad lay through (as Finch observed) a forest. "The country from Allahabad to Patna was populous." This remark applies only to tha river bank as Finch travelled by river from Agra to Bengal. The Doab was well populated. Writing in 1663, Bernier says, "Delhi and Agra rival Paris in beauty, extent and inhabitants."[3] Farishta maintains that during Akbar's times the kingdom of Gurrah(Garh Mandal)governed by Durgavati, 300 miles in length and 100 miles in breadth, was so flourishing that in this territory there were 70,000 towns and villages, well inhabited "which had the good fortune never to have fallen under the dominions of a foroigner."[4] No statistical records of Delhi, Agra, and Lucknow are available and as such they appear to be of the same size. Jourdan says, Agra was one of the biggest cities of the world; Coryat says that Lahore was bigger than Constantinople; and Agra was as large as Rome. Ralph Fitch says that Agra and Fatehpur Sikri

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1 H.S. Commissariat, *History of Gujrat*. Chap. IX, p. 104.

2 Ali Muhammad Khan, *Mirat-i-Ahmadi* Per. MSS. (S.B.U) Pura means a quarter containing good buildings and bazars, each being almost a city. The deserted suburbs of Usmanpur. on the right bank of the Sabarmati had at least 1000 shops and peopled by traders and artisans. The author mentions by name 110 puras with details about their situation.

3 *Bernier's Travels*, His letter to M.De La Motha Bayer written at Delhi in 1663.

4 Farishta, *Tarikh* (Per; MSS. S.B. p. 251; Alexander Dows' Eng. Tr. (*History of Hindustan*). Vol.II. p. 262.

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were each much greater than London. Monserrate says that Lahore was second to no city in Europe or Asia. Other travellers offer similar comparisons.[1] The comparison shows that the big cities contained nearly two to four lakh people.[2]

The above description leads us to the conclusion that Bengal, the North-Western plains, Gujrat and Southern India were thickly populated when judged by contemporary European standards. It is difficult to estimate an exact comparative size of Indian cities. Speaking generally, as Morleand observed, "They class the largest cities of India with the largest cities of the West."[3]

Though correct details of India are wanting, the estimate of India's population by Moreland somewhere near 10 crores during the prosperous times of Akbar cannot be questioned "but there is no means of tracing its subsequent increase until the first Census was taken (in 1872)."[4] Some exaggerated notions did prevail about the figures of population. Writing for the middle of the 17 the century, Thevenot says that Agra, the largest city of the period was densely populated. The current opinion that it could furnish two lakh armed men is a mere exaggeration as the ideas of the extent of the gardens and narrow streets were wrongly interpreted. These presented a crowded look only when the imperial court was present, though at other times they were empty. In the same way if Delhi contained four lakhs of men at the presence of the Mughal Emperor, there were only one-sixth of the people while he was away. Likewise speaking of Gour, a city of Bengal, some writers have pointed out, contained 1,200,000 houses. If this is believed to be correct then Gour must be as big as modern London, which is far from truth. In the 16th century, Barras, the Portuguese historian clearly mentions that the population was in the nearness of two lakhs. Thus it appears that the above figures of houses might have either been an exaggeration or must have included also the ruins of the various capitals of the vicinity. The same can be said of the remark of Paes when he says that the number of houses in Vijainagar was more than one lakh which would mean a population of nearly half a million. The agglomerations of the people on special occasions might have swelled, as even in the present times, the population of Allahabad or Hardwar or Muttra swells tenfold or more of the original population on the occasion of our great fairs.

So far as the population of the rural areas is concerned some estimate is possible from the strength of the armies or the extent of the cultivation. According to Moreland we can learn something of the south from the first source and of the North from the second source. The figures are full of doubts. Placing reliance upon the conclusions

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1 Moreland, *India at the Death of Akbar*, p. 13.

2 *Ibid.*

3 *Ibid.*

4 Vera Anstey, *Econ. Development of India.* Chap, III, p. 38.

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reached by Moreland, we find that the population of Northern plains from Multan to Monghyr in the times of Akbar must have been between 30 and 40 millions. The total of the population of all the cities in the northern and the southern areas taken together must have been 60 millions. This estimate neither takes the densely populated regions like Bengal or Gujrat into account, nor even the sparsely populated parts. "We are justified in concluding that there must have been at the least somewhere about 100 millions of people in India in order to carry on their activities disclosed by contemporary activities."[1]

The above estimate of Moreland may be taken as approximately correct for Akbar's times to start with the proposition. We shall not be mistaken, however, to adopt the same principle to arrive at a rough estimate of the population in the times of other Mughal rulers. On the eve of Babar's invasion, though South India, specially Malabar and Vijainagar, Calicut and Cambay were in a flourishing state as corroborated by writers like Nicolo Conti (1420 A.D.), Abdur Razzak (1441A. D.), and Barbosa (first quarter of the 16th century), the North India having been subjected to internal dissensions, was reduced to a state of abject poverty under a series of weak rulers. However, Gujrat, Bengal and Malwa were independent, prosperous kingdoms.[2] On the arrival of Babar, villagers left their hoardings, fled to waste lands; all safety of life and property was gone.[3]

Throughout our period the smaller towns and villages were numerous as the peasantry did not live in scattered dwellings, but in villages surrounded by walls. "The larger towns were inhabited by tradesmen, artisans, and merchants and shop-keepers. ... The streets were narrow and dirty, the exterior of the houses mean any attempt of elegance being reserved for the interior."[4] *Such a state of affairs* would vouchsafe a larger population than the one of Akbar's times. It is, however, safe to estimate it between 8 to 9 crores.

In a reign of peace and prosperity under Shershah Sur, with a safety of roads and a happy and contented peasantry, the population should have increased. Addressing to the peasantry Shershah said,

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1 Moreland, *India at the Death of Akbar*, p. 22.

2 Erskine, *History of India, Babar & Humayun*, Vol., Chap I., p. 442.

3 *Tuzaki-i-Babri*, Per.Text. p. 208; Erskine, Vol. I., pp 441 to 442.

Babar describes his difficulties thus: "On our first coming to Agra there was remarkable dislike and hostility between its people and mine, the peasantry and soldiers running away in fear of our men....All the inhabitants had run away in terror. Neither grain for ourselves, nor corn for our horses was to be had. The villagers out of hostility had hatred for us and had taken to thieving and highway robbery. There was no moving on the roads... The year was a very hot one, violent, pestilential winds struck people down in heaps together, masses began to die of....

4 Erskine, Vol. II., p. 542.

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"I know well that cultivation depends on the humble peasants, for, if they be ill off, they will produce nothing, but if prosperous, they will produce much....The cultivaters are the source of prosperity. If the ruler cannot protect the peasantry from the lawlessness, it is tyranny to expect revenue from them."[1] Travelling in his reign was safe. Muqqadams of the villages concerned were punished for every crime untraced on the roads. It is no exaggeration when Elphinstone asserts that "Shershah undertook measures as benevolent in their intentions, as wise in their conduct."[2] The short period of his reign is replete with many improvements wrought by him in his administration of the country. Under Shershah and his successors the population must be about 9½ crores. The population in the reigns of Jehangir, Shahjehan and Aurangzeb must be adopting a rising trend.

4 Famines

"By the middle of the eighteenth century", says Dr. Radha Kamal Mookerjee, "the population increased to 130 millions. A century later 150 millions were recorded in 1850 A.D. The growth was accelerated in the 19th century due to improvements in the means of communication and irrigation which checked the severity of famines. Between 1800 and 1900, the population increased by about 150 millions in spite of the visitations of about 30 famines which killed off 32.4 millions of the population."[4] The above remarks clearly explain the phenomena that famines by themselves, though taking a large toll of lives, cannot check the growth of population over long periods. During the Mughal reign, from Akbar to Aurangzeb, India experienced severe famines. "Famine", as has been truly said, "lies broad written across the pages of Indian history."[5] A large number

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1 Abbas, *Tauhfa -i-Akbarshahi*: Per· MSS. (S.B.U.). 19. Ellio, Vol. IV, p. 313·

Shershah kept 150,003 horses and 25,000 foot-men with match-locks duly armed. The total strength of the army cannot be accurately ascertained. It may, however, be surmised that the strength of the provincial armies must have been epual to that stationed at the capital. Dr. A.L. Shrivastava, *Shershah and his Successors*, p. 69.

2 Elphinston, p. 447.

3 Lanka Sundaram, *Revenue Resources of the Mughal Empire*, p. 20.

4 Dr. R. K.Mookerjee, *Population & Food Supply*, p. 3.

5 Sir Harcourt Butler: I.G. III (1907) Chap. X. p. 476.

Smith V.A., *Akbar the Great Mughal*, Chap X, p. 475.

The occurrence of famines resulting from the absolute non-existence of crops was and is inevitable in a country where the possibility of sowing and reaping of crops depend upon seasonal rains which often fail and where the masses of the population have been extremely poor.... The modern extension of communication and irrigation on a gigantic scale has done much to remove the causes of extreme famine but nothing can absolutely prevent its recurrence.

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of famines under Akbar's times were followed by loss of life and property caused by hunger, epidemics and inundation. In 1555-56, the year of Akbar's accession, there was a famine while Abul Fazl was a mere child of 5 years Delhi paid a high tribute of mortality, and so did Agra. The famine was followed by an epidemic.[1] Badaoni witnessed that "men ate their own kind and the appearance of the famished sufferers was so hideous that one could scarcely look upon them. The whole country was a desert and no husbandmen lived to till the ground."[2] There were five famines from 1573 to 1595. In 1573 Gujrat experienced a famine for six months. "The inhabitants rich and poor fled in starvation from the country and were scattered abroad."[3] In 1583-84, a famine shot up prices of necessaries on account of the dryness of the year and the means of subsistence of many people came to an end.[4] "The famine which began in 1595 (1004 H.) and lasted 3 or 4 years until 1598 equalled in its horrors the one which had of its longer duration. . . ."[5] The Jesuit missionaries witnessed the effect of the famine and pestilence at Lahore and Kashmir but no contemporary authority cared to record the details or give any estimate of the extent of havoc wrought.[6]

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1 *Ain*, III. Tr. Jarret and Sarkar, Chap. XIV. p.489. (1948) Describing the horrors of famine, Abul Fazl narrates his own difficulties. In the family of 70 persons, only one seer of grain was supplied and his father used to get it boiled in water and distributed a few grains with a cupful boiled water. This was the only repast for the whole day and night. The Persian text runs as under:

"نخستین در سال جلوس شهنشاهی بر اورنگ خلافت چنانچه سیند بر دولت افروزند و واقع عین اکمال انگارند- قحط سالے سترگ پدید آورد دگرده تفرقه بلندی گرفت- آں معموره خراب شده و غیر از خانه چند اثرے نماند ویاے عالم بسر بری آں شورش بے اندازه برجهانیاں آسیب رسانید- در اکثر بلاد هندوستاں این نگدستی جانگدائی بود . . . راقم سنگروفاقه دراں هنگام درسال پنجم بود- سختی روزگار خانه نها برافگند وگردها مردم فروشدند درآں کاشانه هفتاد کس از ذکور قدمات خورد و بزرگ مانده باشند- اخوان روزگار از فراخی حال نشاط درویشاں حیرت او افزود- وکیمیا گری و طرازگی گمان بردے- گاه یک سیر غله بهم رسید- وآنرا به دیگهاے سفالین جوشانیدے آب تفسیده چند این مردم قسمت یافتے- بجز پرستش ایزدی دیرے بخاطر راه نیافتے-"

2 Badaoni, Eng. Tr. Ranking, pp 540-551. Elliot, Vol. V. pp 490-1.

3 *Tabqat*, in Elliot, Vol., V, p. 384.

4 Abulfazal, *Akbarnama*. per Text. p. 625.

5 Smith, *Akbar the Great Moguhl*: p. 396.

"Abulfazal slurs upon the calamity by using vague words designed to cancel the severity of distress and to save the credit of the imperial government. He gives details of the accession year to show that things improved when Akbar ascended the throne.

6 Smith, V. A., *Akbar the Great Mughal*, p. 398.

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These famines were followed by epidemics. Mr. Smith maintains that "probably cholera caused a large part of the mortality in the 16th century."[1] Bubonic pague was recognised by Jehangir.[2] Malaria and multiform diseases broke out in 1575 extending over the whole of Bengal in general and Gour in particular. The inundation of 1584-5 in the Meghna delta was a calamity which marred the record of Akbar's prosperity. "In the 29th year of the Divine era, a terrible inundation occurred at 3 o'clock in the afternoon which swept over the whole of the sarkar (of Bengal)..... Nearly two lakh creatures perished in the flood."[3]

Generally speaking rulers did little to ameliorate the sufferings caused by the famines and other devastating havocs. Hemu, the minister of King Adali, a claimant to the throne displayed complete indifference to the sufferings of the people by feeding his elephants on rice, sugar and butter while men and women ate one another.[4] The most commendable effort to relieve distress seems to have been made by Akbar during the famine of 1595-98 when Sheikh of Bukhara, 'a man of generally generous disposition', was put on special duty to superintend relief measures. Muhammad Amin Qaswimi, the author of *Badshah Nama*, asserts that during the horrible famine of 1630-32 Shahjehan opened few kitchens and gave 1½ lakh rupees in charity spread over a period of 20 weeks, and remitted one-eleventh of the revenue assessments. "The lack of suitable organisation for relief measures, the want of rapid means of communication between different parts of India and a certain fatalist outlook upon mundane affairs, all combined to prevent any serious attempt to save human life."[5]

In the famine of 1614 recorded by Jehangir, the area effected was primarily the Punjab as far east as Delhi and as Moreland maintains "the drought was localised in the Punjab."[6] The famine of 1618-19 was localised in the Deccan in general and on Coromondal Coast in particular. As for the famine of 1630-32 the failure of crops occurred in the central parts of India. "The Gangetic plain was not effected and Petermundy's account northwards from Gujrat shows that most of Malwa had escaped."[7] The famine of 1630 was severe "in the western districts of Golcunda whence news would naturally reach

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1 *Ibid.*

2 *Tuzak-i-Jehangiri*, (Memoirs of Jehangir) Tr. Rodgers and Beveridge I. p. 330, 342.

3 Smith, V. A., p; 399.

4 Elliot. Vol. VI. p. 246. Terry, p. 226-9; (Sir Thomas Roe's site was attacked by the disease in 1615 at Ahmedabad).

5 *Ain-i-Akbari*, III. Abulfazl. (P.N.), Eng, Tr. III. pp. 475.

6 Edwardes and Garrett, *Mughal Rule in India*, II. Chap. II., p. 240-1.

7 Moreland, *Akbar to Aurangzeb*, p. 210.

8 *Ibid.*

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Surat."[1] The first year of Aurangzeb's reign was likewise marked by a famine of intense severity, which caused unspeakable suffering in Northern and Central India. Col. Tod, speaking of its effect in Marwar said: "There was no longer distinction of caste, and the Shudra and the Brahmin were undistinguishable. . . Fruits, flowers, every vegetable thing, even trees were stripped of their bark, to appease the cravings of hunger; nay men ate men. Cities were depopulated. The seed of families was lost, the fishes were extinct, and the hope of all extinguished."[2]

"In spite of the liability of India to recurring periods of distress and acute famine, the Mughal administration does not appear to have made any comprehensive or prolonged effort to provide relief."[3] Heavy mortality, the enslavement of children and cannibalism were the normal accompaniments of serious famines in Mughal times as they had been before. But the effect of most of these famines was rather too local. Moreland estimates that between 1614 and 1659 there were thirteen famines or periods of great scarcity in India of which ten occurred during the reign of Shahjehan.[4] His suspicion brought about by the horrors of famine appears to make him shy to make even a guess of India's population. The following chart prepared from the account of Moreland himself explains the effect of the famines that occurred in India in the period under review:

Year	Locality	Authority of record	Remarks
1614–15	Punjab up to Delhi	Jehangir	..
1618–19	South India, Coromondal Coast, Vijainagar in particular.	M.D. Faria U Sousa Methwold.	Supplies of rice were ample.
1630–31	Central parts of India. Gangetic plain not effected. Malwa escaped.	Peter Mundy, English letters of 1631. Dutch Senior Merchant-Twist.	.. ..
1635	Western districts of Golcunda and Musalipattam.	Dutch factors at Surat.	..
1640	Pulicat and Madras.	Dutch Reports	Famine not acute.
1641	Gurjrat and N.	Dutch	Cotton crop in

1 *Ibid.*, p. 208

2 Tod, *Annals and Antiquities of Rajasthan*, II. (1920), p. 455.

3 Edwardes and Garrett, p. 239.
Moreland, *India at the Death of Akbar*, p. 266

4 Moreland, *India from Akbar to Aurangzeb*, p. 208.

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	Ahmedabad		North suffered and prices rose.
1642-43	Orissa (neighbourhood of Pipli) Bengal. Winter rains failed.	English merchants	Rice scarce.
1645-46	South section of Coromondal Coast, Pulicat, and Madras	1645-46. Letters from English factors	All painters and weavers dead. Rice sent from Surat dear.
1647	Rajputana	Do	Mortality and people's flight.
1648	Coromondal Coast	Do	Rice forwarded from Surat. Timely rains followed.
1650	Oudh and Gujrat	Surat factors	Droughts widespread. Crops shortage all though not intense.
1658	Sind	Surat factors	Disease and pestilence. Surat factors sent grain to Lahri Bander to keep weavers alive.
1659-60	East Coast, Gujrat, Negapattam.	English factors Khafi Khan, 1070 H. 1659 A.D.	Deficient rainfall and demand for supplies on the field for armies.

So far as the worst famine of 1630-31 is concerned, even the English letters of 1631-32 show that "English merchants had ordered large quantities of grain from Persia. . There was surplus grain in the North," but the cost of carriage was. . . exceedingly heavy and "it is hard to see how pack animals could have moved through the country without fodder or water in numbers adequate to the emergency."[1] Peter Mundy observes that "the country near Sironj was well-stocked with food. . . " By the end of 1631, the banjaras or grain carriers were coming, the sea trade was helping, and from this time forward it appears that the needs of the reduced population were not too great to be provided by the ordinary course of trade, though at prices far above the level.[2] Early in 1632 the situation was eased. It will be apparent from Van Twist's description that the calamities of 1631 were more local than those of the previous years. The supplies were therefore available from

1 Moreland, *India from Akbar to Aurangzeb*, Chap. VII, p. 214.

2 *Ibid.*

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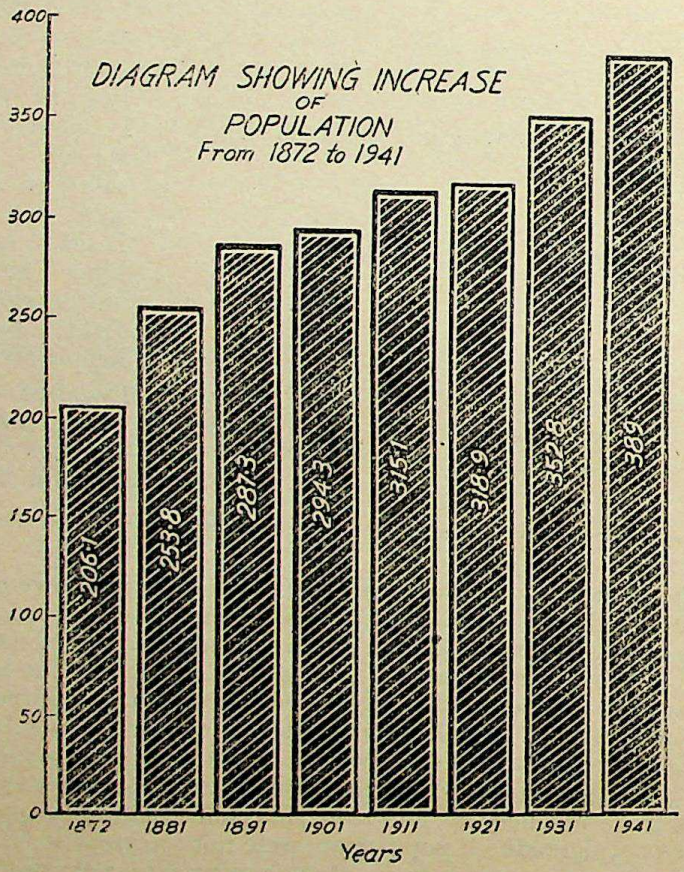
the less remote areas and prices began to fall as grain arrived from outside.[1]

Dr. Radha Kamal Mookerjee paints the picture of the effects of famines by giving comparative figures of prices. He adds, "Illustration of famine prices is afforded by the fact that while the normal price of wheat was 80 or 85 pounds per rupee, the English factors at Surat were buying wheat in November 1630 at the rate of $13\frac{3}{4}$ pound. And in September next year it was 6 lbs per rupee . . . At Patna on August 20, 1671 rice was selling at 5 seers per rupee or Rs. 8 - per maund and was



Years

Fig. 2.

(*Figures of* **1951** *not given as they refer to post-partition*)

1 *Ibid.*, p. 216.

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very scarce to be bought for that price. This was the record in John Marshal's diary. Earlier Thomas Bowry reported in 1670 that one Patna seer of rice was sold for Re 1 .... and in a few years there was none at all to be had at the rate; in ordinary years one rupee could buy one or two maunds . . D. Graaf who visited Patna in 1670, observes "Rice costs half a rix dollar for six seers or 916 Dutch weight while in ordinary years 60,70, or more pounds could be bought for the same amount."[1]

The recovery of commerce is marked by a letter of Dec. 1635 when Surat factors reported that prices were gradually falling owing to the cheapness of grain and the return of inhabitants, In December a factor wrote that "the country had recovered from famine, goods were to be had in abundance and that prospects of commerce were very encouraging.... Gujrat was again prosperous by 1639...."[2]

The above account leads us to the conclusion that all the famines were of local nature, and as such the general growth of population in the country as a whole could not have been retarded. The population figures from 1872 to 1941 speak of a constant increase in each decade.[3]

Year	Population in million	Percentage increase
1872	206.1	..
1881	253.8	23.2
1891	287.3	13.2
1901	294.3	2.5
1911	315.1	7.1
1921	318.9	1.2
1931	352.8	10.6
1941	389.0	10.2
1951	356.9	..

The above figures speak of a tendency of increase in the population decade by decade. "The Law of Statistical Regularity working unseen and unnoticed leads us to the conclusion that likewise the population from Akbar to Aurangzeb's reign must be increasing. Besides, when the territory under Aurangzeb's reign, had increased, the population must

1 Dr. Radha Kamal Mookerjee, *Econ. Hist. of India* 1600-1800. (Pub. in U. P. Journal of Hist. Soc. Dec. 1941 Vol. XIV. Part II.), p. 62.

2 Moreland, *From Akbar to Aurangzeb*, Chap. VII, pp 217-18.

3 Prepared from Census figures. The figures of 1951 refer to after partition figures and as such percentage of increase not given for comparison,

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have certainly increased. Hence we conclude that during the times of Aurangzeb and at his death the population must have at least been 130 millions long before the middle of the 18th century.[1]

1 Dr. Radhakamal Mookerjee suggests that by the middle of the 18th century the population reached to 130 millions. (*Population and Food Supply*, p. 1.)

It is strange that neither the *Ain-i-Akbari* nor any work of a later date, though detailing at length the land-settlement of the country in the times of different Mughal rulers adducing the number of sarkars, parganas and even the number of villages, did not care to give population figures of any unit of area. Under the circumstances, no other method is possible to arrive at a correct guess of population figures.

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CHAPTER 3

LABOUR SUPPLY

1. People in General

Closely allied with the problem of population is the problem of labour supply which lies submerged under the history of the people. During the period under review the middle class in the West had begun to demand and to receive a share of power; in the East "strong monarchs had arisen who had encouraged trade, extended their dominions on all sides, maintained peace and suppressed disorders with a ruthless hand."[1] "It is a peculiarity of the 16th century", says Rushbrook Williams, "that in the East and the West alike, it witnessed the commencement of a process of reconstruction."[2] The change was not free from defects. In the 15th century fine arts and architecture had attained a high celebrity. The beginning of the 16th century in India was a period of transition and for a correct understanding of which it is necessary to study the conditions out of which it took shape.

There are practically no changes discernible in the social and economic conditions and in the general character of the people under the Mughal rule since the times of the Sultanate of Delhi. The same mixed type of population, the same manners and customs of the people and the same economic set-up continued. The vast majority of people under the Sultanate period consisted of Hindus, nearly 95 per cent. They were called Zimmis and required to pay a special tax called the "Jazia". They were denied the full rights of citizenship and their very existence and religion were abominable;[3] considerable numbers of them were owners of land and in a flourishing condition. In politics they did not exercise any direct influence, but in business, industry and commerce, they were supreme. Most of them lived in villages, tilling their soil and seldom coming into contact with the ruling minority. Sufism was providing a cementing influence through their saints and shrines.

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1 Rushbrook Williams, *Empire Builders of the 16th Century*, p. 11,

2 *Ibid.*

3 Z. Barni, *Tarikh-i-Firozshahi*. P. Text, pp 160.

Farishta, *Tarikh*. Per. Text, p. 261.

Elliot, Vol. III, p. 182.,

C.H.I. Vol. III, Chap. II., p. 150,,

Elphinstone, *History of India*, p. 398.

Qazi Mugois Uddin of Bayana on enquiry advised Alauddin Khiljee that when the Revenue Officers demand silver from the Hindus, they must pay gold with all humility. If the officer throws dust into their mouths, they must without reluctance open their mouths and receive it. (*Tarikh Firoz Shahi*)

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Broadly speaking the Muslim society was urban. It "was divided into two classes, namely, the men of the sword and the men of the pen. The Turks belonged to the former category, while the theologian and literary men, who were mostly non-Turks, formed the latter group. They provided to the State the class of teachers and preachers. The Muslim aristocracy was predominantly of Turkish blood. It was a hierarchy with a series of ascending ranks at the top of which were amirs, maliks and khans. . . . Slaves were generally promoted and could become amirs and maliks. . . . The Muslim society must have included, besides soldiers and administrators, traders, artisans, shop-keepers, clerks and beggars."[1] Clerkship was a crime and no one liked to give his daughter in marriage to a clerk.

The Muslim population consisted of the Sunnis mainly, Shias belonged to Multan and Sind and they were hated by the Sunnis. Sufis belonged to the third religious group. They were pious people and lived far off from the towns. "The Sufi saints had many followers whom they initiated into Sufi practices They had two important orders amongst them, namely, the Chistia order and the Suhrawardia order, founded, respectively, by Muinuddin Chishti at Ajmer and Bhauddin Zakaria at Multan. These two saints had many disciples who were instrumental in gaining a large number of willing converts to Islam."[2]

Ruling Class. The Ruling Class under the Sultanate period from the 13th to the first quarter of the 16th century was formed of the foreign Central Asian Muslims, particularly the Turks. The Persians, Arabs and the Abyssinians and Egyptians were also included. "The Turk was the mest jealous guardian of this foreign aristocracy. He was, in fact, its leader."[3] Indian Muslims were excluded from state service. Strictly believing in the policy of racialism, Balban looked with disdain, the low-born non-Turks, but the end of the 13th century swelled the rank of the Muslims ruling class owing to the entry of the countless Muslim refugees from Central Asian countries and fusion in the different sects and nationalities of the Muslims owing to intermarriages. The pride of race purity was gone; and with the advent of the Khiljee, the Turk began to lose his monopoly of power. "A heterogeneous ruling class could hardly be expected to work with a common aim and purpose. The nobility of the Sultanate period, though united during war against the non-Muslims, was torn in times of peace by personal ambition, rivalry and even hostility, and generally pursued selfish interests to the detriment of the welfare of the State."[4]

The Indian Muslims

The Indian Muslims mostly drawn from low Hindus were not only refused entry into the aristocracy; they were not even given a proper

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1 Srivastava A.L., *Sultanate of Delhi*, Chap. X, pp 195 6.
2 *Ibid.* pp 196-7.
3 Srivastava A.L,, *Sultanate of Delhi*, p. 479.
4 *Ibid.* Chap. XVIII, p. 480.

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share in the social and economic privileges. They were not given responsible posts. Iltumish and Balban openly abhorred them. In wealth, position and innate pride the Indian Muslims occupied a far inferior position to a vast majority of the Hindus. The Muslim men of pen were mostly people of non-Turkish origin or their descendants, supplying recruits to the clerical, educational and religious services of which the most important section was that of the educationists as the theologians, styled as Ulemas or clergymen, teachers and judges, and wielded a lot of influence upon the government as also upon the community.

"The lowest strata of the Muslim society was composed mainly of the artisan, the shop-keeper, the clerk and the petty trader."[1] Slaves and beggars were also in plenty. In villages, Muslim trader occupied the lowest strata, slaves and beggars also belonged to this group.

The Hindus

The Hindus forming 95 per cent of the population mostly lived in villages. The lower branches of administration, specially the departments of revenue and finance were manned by them. The khuts, chaudhris and mukkadims were all Hindus. They had almost monopolised banking and money business. Even high Turkish officers and nobles were financed by the Hindus who were mostly agriculturists. Brahmins followed learned professions such as teaching, medicine and the like. The Turkish Sultans and their officers forcibly married Hindu girls of proud chiefs after conversion to Islam. This perpetual humiliation of Hindus who honestly believed that the newcomers were inferior to them in culture, in religion and above all in purity, conduct and ways of life, was abominable. "The political and economic hardships to which they were subjected by the conquerors did not inflict upon them so much misery as the humiliating treatment, religious persecution, and above all inroads upon their family honour."[2]

The Hindu society was caste-ridden and the Turkish rule made restrictions even more rigorous. To free themselves from the Turkish hobby of seeking beautiful Hindu girls for wives, child marriages became common. In the upper and middle classes seclusion became a general practice, except among the low classes, widow marriage was unthinkable. There was little female education. The Hindus were devoted to their religion, believed in their superstitions, astrology, palmistry, magic and sorcery. The intellectuals amongst them had faith in the unity of God, a majority worshipped images. Debts were timely repaid. It was a man's responsibility to discharge his father's debt obligations. In short the standard of individual morality and conduct was fairly good.

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1 Srivastava, A.L., *Sultanate of Delhi*, Chap. XVIII, p. 483.

2 Khafi Khan, *Muntakhab-ul-Lubab*, Per. Text, p. 517.
Elliot Vol. VII, p. 283.

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Mughal Rule and People in General

Though there was no change in the character of the population except the considerable rise in the number of Muslims in the Mughal times, a change of attitude of the king was discernible since the times of Akbar which brought the two communities rather together. The age-long apathy aganst the Hindus was eased. Some of the highest posts were offered to Hindus and Raja Todarmal, Akbar's Finance Minister and Raja Mansingh of Amber are examples on the point. Hindus were freely associated with the administration of the Empire. Jazia was abolished.[1] Hindus had affectionate regard for Akbar which is clear from an anecdote, which though seemingly just in keeping with their beliefs, bears no historical authenticity. Murtaza Hussain Bilagrami in his *Hadiq-ul-Aqalim* refers to a story of Akbar's previous birth wherein he is said to have been a Hindu saint named Mukanda, owning three disciples, living near Jhusi, at the confluence of the Ganges and the Jumna. With an ardent desire to attain a kingdom, so runs the story, Mukand cut his body in pieces from "nail to hair" and offered to sacrificial fire and took birth as the son of Humayun. His disciples Biran and the other two also followed suit. Akbar was born in Samvat Vikrami 1590 as corroborated by a Sanskrit couplet found engraved on the copper basin used in 'homan' (sacrificial fire). Biran was born in a Brahmin family and was named Birbar. The other two disciples took birth as Todarmal and Tansen who chose to be Akbar's companions. This fact is also borne out by Abdur-Rahim Khan-khana.[2]

The policy of toleration continued up to Jehangir's times. Even Shahjehan eventually acquiesced in the same policy. But Aurangzeb in spite of his learning and many qualities, owing to his iconoclastic zeal revived a fanatic policy and reimposed Jazia on the Hindus, persecuted Shias, discouraged fine arts and music, alienated Rajput sympathies to the throne, levelled down temples and shrines, and above all sowed the seeds of the downfall of the Mughal Empire. He wasted 25 long years of his reign in the Deccan from where he never returned. "It was the grave of his reputation."[3]

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1 Jazia was reimposed in 1680 in all provinces. Mohammad Hashim Khafi Khan, *Muntakhab-ul-Lubab*, p. 514. Elliot VII, p. 283.

2 Murtazi Hussain Bilagrami, *Hadiqa-ul Aqalim*. Per. Text, pp. 665-6. The actual couplet is as follows:

बासद: बान चन्द्र तीरथराज प्रयाग मकरभल लक्ष्मी द्वादशी पूरव जामं ।
नख, शिख, तन होभो, सर्व भयाधिपति सकल बृतधारी ब्रह्मचारी मुकन्दा ।।

In Prayag (Allahabad) in V.S. 1590, on 12 Sudi Maugh (corresponding to 955 H.Qamri) with an ardent desire to attain Hindustan's Kingdom Brahmachari Mukanda, cut his body in pieces from head to foot and sacrificed it in fire.

3 *CHI*, Chap. VI, p. 444.

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At the opening of the Mughal period the dress and manners of the people were described by Babar in these words, "Peasants and people of low standing go about naked. They tie on a thing called langota, a decency clout which hangs two spans below the navel. . . Women also tie on a cloth one-half of which goes round the waist, the other is thrown over the head."[1] He finds fault with their manners and mode of life and considers them an uncultured people. But the description of European travellers is more valuable. Describing the Hindu population of Gujrat in 1515 Barbosa maintains, "The people neither ate flesh nor fish nor anything subject to death. They slay nothing, nor are they willing even to see the slaughter of an animal. For often, it is said that the moors take to them live insects or birds and make as though to kill them in their presence, and the banias buy these and ransom these, paying much more than they are worth, so that they may save their lives and let them go. And if the king or the governor of the land condemned any man to death, for any crime which he had committed, they gather themselves together and buy him from justice so that he may not die."[2] This is a clear depiction of Hindu character in the whole country and speaks of the merciful and kindly disposition of the people. On the other hand, Babar, with the natural bias of a foreign conqueror, and having faced untold difficulties in the country, indulged in sweeping condemnation of the people. Commenting upon the manners of their life, Barbosa further remarks, "Their diet was milk, butter, sugar and rice and they consumed fruits and vegetables to a great extent. Twice a day, they had a bath both men and women to wash off as many sins as had been committed up till that hour. . . They anointed their body with sandal wood mixed with saffron and other scents. They were much given to golden earings set with precious stones and golden girdles over their clothes. . . .They kept no arms, only knives ornamented with gold and silver and trusted the Muslim rulers to defend them."[3] The bania women were described as beautiful. The women were kept much at home in purdah.

Speaking of Humayun's times, Khwand Amir says, "The population was happy as he patronised and protected all according to their respective stations or ranks. Desires of high and low were fully satisfied; and by the light of this judicious administration, he made the entire country of Hindustan as rich and prosperous as the garden of Iran"[4] He patronised the agriculturists and traders. He loved and respected merchants who came from overseas and various countries, he granted them much protection and, by giving them charters and reducing their taxes, gave proofs of his generosity. He

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1 Beveridge, A.S., *Memoirs of Babar*, p 293. Illminski, pp 377-8; P.De Courteille II, pp. 226-30.

2 *Durate Barbosa*, Tr. and Edited by Longworth Dames. (H.K. Soc.) p. 110.

3 *Ibid.*, pp 112-4.

4 *Iram —Garden of Paradise, Dictionary of Islam*, p. 216.

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exempted artisans and tradesmen who endure much labour, undertake all risks. All the rates and duties having been fixed, great protection was afforded to trade and industry.[1] The administrative system was, however, not efficient. The scheme of the government was still saifi (by the sword) and not qalmi (by the pen.).[2] Often the subjects, the Hindus and most of the country Muslims had accepted the Mughal supremacy as a matter of course; the former because the change of rulers did not affect them, and the latter because the Mughal culture was more welcome to them than that of the Lodis.[3] An important problem of the age was that the Afghans were powerful and "every one from the prince downwards loved power and pelf and aimed at autonomy in the districts or provinces assigned to them"[4] In spite of their overwhelming numbers, caste-ridden as they were, the Hindus could not play any aggressive part in the politics of their times. Nor could they defend themselves from Muslim attacks. They had to acquiesce "in the arbitrary dictations which were a common feature of the political practice adopted by the Muslim state in India towards the weak Hindu neighbours."[5]

The people in the reign of Shershah were happy and contented. Travelling was safe.[6] He planned a definite scheme of public welfare and utilised the public wealth as well as private treasure for the purpose and put down vagrancy with a strong hand. "An idler or shirker of work was to be severely punished, if necessary capitally."[7] His motto was:

"مملکت معمور خواهی خلق را معمور دار
و زسر ایشان بلای ظالمان را دور دار"

"If thou wisheth thy kingdom well populated, keep thy subjects happy, and keep away the troubles of the wicked from off their head"

And for the development of agriculture he would say:

"زراعت میسر نشود تا آنکه رعیت سهولت نکند"

"Unless the peasants are at ease the development of agriculture is not possible."

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1 Khwand Amir, *Humayun Nama*. Per. Text. 24-7., Eng. Tr. Beni Pd., pp. 19-21.

2 *C.H.I.*, Vol IV., p. 27.

3 Bannerjee, *Humayun Badshah*, pp 30.31.

4 *Ibid.*, p. 71.

5 *Ibid.*, p 71.

"راه هاز وزدایمن ساز گر تو خواهی زملک آبادان"

6 Abbas Sarwani, *Tauhfa-i Akbarshahi*, Per. MSS. Text. Chap.I, p. 15.

7 *Ibid.*, p. 180. Original text runs as under:

"تا نکوشی بمعدلت نه شوی هگز ز ملک و سلطنت شادان"

Unless thou taketh care, there will be no justice and the country will be never happy. Keep the road free from fear of thieves if thou wisheth the country to be prosperous.

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Again for the welfare of his labour population, he relied on the following maxim[1] :

مراعات دهقان کن از بهر خویش که مزدور خوش دل کند کار بیش"

"For your ownself protect the village people;

The happy labourer works more."

Prosperity under Shershah increased every day.[2] Ryots were safe from the fear of plunder. He was not partial in his gifts and offerings of offices to his friends and relations and punished dishonest officers. Old servants were patronised.[3] People received good justice from the courts.[4] He built 1700 serais along the roads where cold water was available. If due to the narrowness of the roads, the army was responsible for the damage of crops, the amount of loss having been duly ascertained, was made good. If a soldier pitched a tent on the field, he was to make good the loss personally.[5] Free kitchens were organised for the poor and the needy. Blind, crippled, the old and incapacitated, widows and the sick got maintenance from the royal privy purse. Students, travellers and the needy, who approached the king received help.

The *Ain-i-Akbari* gives true picture of the people under Akbar's reign. The inhabitants of the land were religious, affectionate, hospitable, genial and frank, They were fond of scientific pursuits, inclined to austerity of life, seekers after justice, contented, industrious, capable in affairs, loyal, truthful and constant. "The true worth of these people shines most in adversity", says Abulfazl, "And its soldiers know not retreat from the field When the day is doubtful, they dismount from the steeds, and resolutely put their lives to hazard

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1 Abbas Sarwani, *Tauhfa-i-Akbarshahi*. Per. MSS., p.16-

2 *Ibid.*, p. 26. The actual words are:

"هر ملک در تصرف آردند در عمرت و زارعت الملک سعی نمود

Whatever country comes into his possession, it progressd in prosperity and agriculture.

3 *Ibid.*, p. 177.

4 *Ibid.*

5 *Ibid.*, pp 182-184.

* The author of the *Muntakhab-ul-Tawarikh* says that he himself saw the high road from Bengal to Rohtas which was in many places ornamented after it had stood for 52 years. (*Tauhfa-i-Akbar Shahi*, Elliot Vol. IV. p. 418) 3400 horses were ready to bring intelligence from the 1700 serais

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accounting the dishonour of flight more terrible than death, while some even disable their horses before entering the fight."[1]

The people were so intelligent that they could master any subject in a short time and even surpassed their instructors. They believed in the unity of God and worshipped images. They kept no slaves. "In times of distress should anyone, though unconnected by ties of intimacy implore their protection, they are prompt to aid, grudge neither property, life nor reputation."[2] The same thing was observed by the Chinese pilgrim Yuan Chwang in the 7th century. "The ordinary people, although they are naturally light-minded, yet they are upright and honourable, faithful in their promises. . . . In their behaviour there is much gentlemanliness and sweetness."[3] Speaking of the Marahattas Sarkar says that their disposition was simple and honest to their benefactors and relentless to their enemies. "If they are asked to help one in distress, they will forget themselves in their haste to render assistance."[4]

The labour and skill of the peasant and the farmer were necessary under every government. There were no capitalists. Every village had as in Persia a kilanter and a headman and some village councillors who afforded a certain degree of protection and succour. The miseries and comforts of the people of the area were under his charge "as all powers, civil and military, were vested in him. He could at any time be removed by the king at his displeasure."[5]

The condition of the masses under Shahjehan and Aurangzeb suffered deterioration. Writing to Monsieur Colbert, Bernier says, "The salary is disbursed once in two months as it is a charge on the king's pay. . . . The king keeps contractors upon his own jagir. . . . There is no man before whom the injured peasant, artisan or tradesman can pour out his just complaints." Again speaking of the tyranny of the Tamariot, governors and revenue contractors, Bernier

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Ellio tVol, IV, p. 423 *Tarikh-i-Farishta*. Per Text. p. 228. It says that Shershah constructed a road from Bengal (Sonargaon) to Sind (in Punjab) which was 1500 miles in length and on every karoh made a serai with free kitchens for Hindus and Muslims. A similar road was constructed from Agra to Mandu which was 300 miles in length.

1 *Ibid.*

2 Abulfazl, *Ain*. Per. Text. 149; Tr H.S.Jarrett III., pp. 8-9.

3 *Ibid.*

4 Beal, I, 83.

5 Sarkar, J.N., *Aurangzeb*, V. Chap. II., p. 256.

6 Erskine, *History of India*, Vol. II., Book. VI, p. 540.

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continues: (it is) "so excessive as deprive the peasants and the artisans of the necessaries of life and leave them to die of misery and exhaustion—a tyranny owing to which these wretched people either have no children at all or have them only to endure the agony of starvation and to die at a tender age—a tyranny that drives the cultivator of the soil from his wretched treatment, or to the army where he becomes the servant of some trooper."[1] The ground was seldom tilled except under compulsion. The irrigation canals were not repaired and agriculture suffered from want of compulsion.. Due to dwindling population the houses were not repaired. Due to the law of escheat neither the cultivator nor the landlord cared for the upkeep of agricultural land "Owing to this miserable system of government most towns in Hindustan are made up of earth, mud and other wretched material, that there is no city or town, which, if it be not already ruined and deserted, does not bear evident marks of approaching decay."[2]

Social and Economic Life

As for the social and economic conditions of the people, a correct opinion can be formed from the account of the various famines under the Mughal rule as given in the previous chapter. Cholera, plague malaria and inundations took a large toll of the population. The, Mughal rulers had the sole proprietorship of the land. Officers of the court depended upon the generosity of their masters and no one by reason of birth possessed riches. There were wide gulfs separating producers from the consumers. The producers comprised the agricultural population, the industrial workers and the traders. The consuming classes consisted of the Imperial Public Services, civil and military, the professional and the religious classes, servants and slaves, and most of the classes were numerically overstocked, in other words, all the requirements of the state and society could have been met by employment of much smaller numbers in each category. "The hosts of religious mendicants performed no useful functions and much of the domestic service rendered by the crowds of retainers and menials was quite unnecessary."[3] A large portion of the income of the Mughal dominions was wasted and spent on the superfluous services which ultimately recoiled upon the heads of the producing classes. The nobles and the high officials, mostly foreigners, were highly paid by Akbar and extravagantly remunerated by Shahjehan This bred pomp, show and luxury. The rulers were very often prolific. Shahjehan had his peacock throne prepared for a crore of rupees.[4] He sent a candle-stand, called Gul-Muhammadi, studded with gems and jewels for the Prophet's tomb at Medina. The price was 3½ lakhs of rupees.

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1 Archibald Constable, *Bernier's Travels*: VI., pp 225-6.

2 *Ibid.*

3 Edwardes and Garrett, *Mughal Rule in India*, Chap. VII, p. 272.

4 Abdul Hameed, *Badshah Nama*:. Per MSS. (S.B.U.); Elliot Vol. VII., Chap. LXII, p. 25.

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He lavishly granted large rewards to his men of family and the courtiers.[1] A peet, by his pen name, Kalim eulogised the emperor in these words :[2]

"چہل قلعہ بہ یک سال گرفتی کہ بکش شاہان نتوانند بہ چہل سال گرفت"

"Thou constructed forty forts in a year, the like of one of which cannot be constructed by kings in forty years."

There was no encouragement to practise thrift as the nobles ran the risk of losing their amassed wealth. They spent their savings recklessly on dowries of their daughters, on buildings, costly food and dress, ice so costly in those days, importation of fruits from Samarqand and costly presents to the king. Bernier who was in India during the reign of Shahjehan and Aurangzeb records that most of the nobles were impoverished and in debt, and in their efforts to save off financial ruin, they resorted to heartless oppression of the peasantry.

The economic disparity between the rich and the poor, apparent during the reign of Akbar assumed frightening proportions during the reigns of Jehangir and Shahjehan. The chief of the Dutch factory, while reviewing the condition in 1626 A. D. remarked that while immense power and luxury were the portion of the rich, the general mass of the population was indescribably poor. "Though nominally free men, the workmen and the slaves, peons and the shop-keepers were little better off than slaves the workman in particular was the victim of low wages and oppression. He was at the beck and call of the bureaucratic hierarchy, any one of them, if he required his services, would seize him, flog him if he protested and on the conclusion of his forced task would pay half of what was due or sometimes nothing at all."[3]

The workmen lived in abject poverty—no food, no dress, no home. Servants and slaves were a little better off. The merchant and the shop-keeper rather enjoyed better status and amenities. Members of the professional class were in poor circumstances unless attached to the king. In times of famine, which were rather frequent, the condition of these fellows was indescribable as already noted in the last chapter.

Slavery

Slavery existed even during the times of Akbar and was encourag-

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1 Zahid Khan, *Shahjehan Nama*: Per MSS. (S.B.U.), p. 199.

2 *Ibid*, p. 116., Elliot Vol VI., p. 498;

Sir Thomas Roe in Veer Collectiona Vol. IX p. 414; Bakhtawarkhan, *Mirat-Alam* Per MSS, (S.B.U.) p 1051 mentions that Aurangzeb had abolished the practice of confiscating the estates of the deceased against whom there was no state claim. (Elliot, Vol VII, p. 142.).

3 Edwardes and Garrett, *Mughal Rule in India*, p. 274.

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ed during the times of Jehangir. Slaves and eunuchs were imported from East of India and Africa. Slaves were also available within the empire. In Rajputana the practice has continued to this day. Bengal and Assam were important provinces to supply slaves. "In spite of the repeated edicts of Akbar and Jehangir, this trade in "human flesh" flourished under the very nose of the king, for he was the largest slave owner (if eunuchs are included) in the empire."[2] "In 1561 A.D., a prohibition was issued against making of slaves of persons captured in war, an infamous practice which had gained such a height that not only the innocent wives and children of garrisons taken in storm were sold in slavery, but even the peaceful inhabitants in a hostile country were seized for the same purpose."[3]

"Harems or seraglios required the services of a large number of eunuchs to guard the purity of the "gilded hens", innumerable in number, so that the 'golden cock' might crow over all."[4] Jehangir himself mentions that "in Hindustan, specially in the province of Sylhet, which is a dependency of Bengal, it was the custom of the people of those parts to make eunuchs of some of their sons and give them to the governor in place of revenue (Mal Wajib). This custom by degrees has been adopted in other provinces and every year some children are thus ruined and cut off from procreation. This practice has become common. At this time I issued an order that hereafter no one should follow this abominable custom and that the traffic in young eunuchs should be completely done away with."[5] William Finch says, "A wood is encircled and whatsoever is taken in this enclosure is called the king's sikar (sport). . . .The beasts taken, if man's meat, are sold and the money given to the poore; if men, they remaine the king's slaves which he yearly sends to Cabull to barter for horse and dogs; these being poore, miserable thievish people that live in woods and deserts, little differing from beasts."[6] Sir Thomas Roe in his memoirs main-

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1 Abul Fazl. *Ain:* Eng. Tr. Blockmann. Vol. I., pp 263-4, (*Ain* 6) Abul Fazl writes that.. Many (slaves) have chosen the road to kindness (by accepting Divine faith, Din-i-Illahi) ... Slave meant a chela and four meanings were attached to the term. Slave in ordinay sense, one leaving the path of selfishness, one's child, a murderer who kills another to attain property and repents, a robber who repents,a murderer whose guilt has been atoned for payment in money, one who willingly accepts to become a slave... Pay of the chelas varies from Re 1/- to one dam per diem....

2 Pant D., *Commercial Policy of the Mughals:* p· 131.

3 Montgoomery Martin, *History af Indian Empire.*, p. 117.

4 Pant, *Commercial Policy of the Mughals*, p. 131,

5 *Tuzak-i-Jenangiri.* Per MSS (B.B.U.), p. 115.
Rodgers and Beveridge, Vol. I.,. pp 150-1.

6 William Foster, *Early Travellers in India* 1583-1619, p. 154.

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tains that "Indians live as fishes in the seas, the great ones eat up little, for first the farmer robs the little peasants, the gentleman robs the farmer, the greater robs the smaller and the king robs all." Bernier confirms the same view and remarks, "This debasing state of slavery obstructs the progress of trade and influences the manners and modes of life of every individual."[1]

The English traveller, Dr. Fryer (1673 A. D.), has painted an unpleasant picture of the people living under the domain of Shivajee. Writing from Goa, he speaks of Vengurla, now in the Ratnagiri district as "being under the tyrannical government of Shivajee", and with reference to Karwar, the important town in North Kanara, then recently occupied by the Marahattas, observes: "It is a general calamity and much to be deplored to hear the complaints of the poor people that remain or rather compelled to endure the slavery of Shivajee. The Derais (head-men of the districts or petty chiefs) have land imposed upon them at double the rates as compared to the former, and if they refuse to accept it on the hard conditions (of monied men) they are carried to prison, they are famished almost to death, racked and tortured most inhumanly till they confess where it is. They have now in limbo several Brahmins, whose flesh they tear with pincers, heated red-hot, drub them on the shoulders to extreme anguish (though according to their law it is forbidden to strike a Brahmin). This is the accustomed sauce of all India over; the princes doing the same by the governors when removed from their offices to squeeze their ill-gotten estates out of them, which when they have done, it may be employed again. . . . However under the king of Bijapur, the taxations were much milder while the Mughal armies destroyed the little that was left."[2] This allegation is partly wrong. Knowing as we do the character of Shivajee, it is unthinkable that he and his government would have been so harsh specially upon the Brahmin class. Neither the contemporary Muslim historians like Muhammad Sharif Hanafi (the author of *Majalisus-Salatin*) who had actually travelled the very area, Bakhtawar Khan (author of *Mirat-i-Alam*), Muhammad Qazwimi (author of *Alamgir Nama*);); Muhammad Saqi Musta-aid-Khan (author of *Maisir-i-Alamgiri*), Muhammad, Hashim Khafi Khan (author of *Muntakhab-ut-Tawarikh*), nor Hindu writers like Sujan Rai (author of *Khulasat-ut-Tawarikh*), Raizada Chatterman (author of *Chhar Gulshan*), Rai Baharmal (author of *Lubab-ut-Tarwarikh*) have made a mention of such a treatment. Contemporary travellers like Bernier and Tavernier have not made any reference to such indescribable wanton acts.

Classes of the Population

The first idea of classification originated from Babar. The principal nobility, the governor of the provinces, the first Minister

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1 Archibald Constable, *Bernier's Travels*. I, p. 225. (Letter to Colbert).

2 Smith, *Oxford History of India*, Book VI., Chap. VI, p. 423.

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and the Secretary of the State were called Umraos rank in the State. The hereditary Rajas also held the same rank, and so did the Muslim Umraos. The emperor was the sole heir to all the officers of the State. The mansabdars were the Umraos of the second rank and they served in the court and in the army. They were gradually promoted according to their services and fidelity.[1] The idea of classification was further elaborated by Humayun. "When the throne of fortune and glory", says Khwandamir, "was filled by this valiant and exalted Badshah, he divided all officers of the State, or rather all the inhabitants of his dominions into three classes: Ahl-i-Daulat (Officers of the State); Ahl-i-Saadat (good men); and Ahl-i-Murad (people of pleasure)." ..The division of people into three classes was also copied in Akbar's times with slight modifications and the account has been detailed by Abul Fazl in his *Akbarnama*.[2]

Humayun included his brothers and other relatives, his officers, his Umraos, his ministers (wazirs) and his soldiers in his Ahl-i-Daulat because it was evident to the acute mind that " there can be no domain without men, that without existence of these brave people, no degree of wealth and prosperity can be attained, and no one can obtain the throne and power without the help of the warriors and heroes.[3] The second category included holy persons, great sheikhs, the respected Saiyids, the learned men, qadis, philosophers, poets, judges, nobles. "An association with this reverend class," says Khwandamir, "secures eternal prosperity and enables one to rise to everlasting dignity and rank."[4]

The third category, Ahl-i-Murad (people of pleasure) included those who possessed beauty and elegance, those who were young and handsome, clever musicians, and sweet singers.

The days of the week were likewise fixed and divided for audience. Thus Thursdays and Saturdays were fixed for the pious people; Sundays and Tuesdays for the State officials, management of the government and Monday and Wednesday for pleasure[5] Even Aurangzeb continued music soirees in the Dewan-i-Khas, Delhi up to the tenth year of his reign (1667 A. D.).[6]

Humayun had made three arrows of gold, known as arrow of Saadat, Daulat and Murad, each handed over to one of the firmly established leader of the classes. The arrows were subdivided into 12 classes as follows :

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1 Erskine, *History of India*, pp. 529-32.

2 Khwandamir *Humayun Nama* .Per Text- p.34 Eng.Tr. Beni Pd, p. 25.

3 Abul Fazl, *Akbarnama*:. Per MSS (S.B.U.), pp. 357-8. Beveridge, pp. 643-4;

4 Khwandamir, Per. Text. p. 34..

5 Khwandamir. *Humayun Nama*, Per. Text. p 26

6 *Ibid.*, p. 26.

7 Sarkar, *Studies in Aurangzeb's Reign*, p. 37. There was no music and

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12th	arrow of the purest	gold	for His Majesty.
11th	Do	Do	for relations, brethren and all sultans in the king's service.
10th	Do	Do	for old men of wisdom, the sheikhs, the saiyids the great learned and religious men.
9th	Do	Do	for nobles.
8th	Do	Do	for courtiers.
7th	Do	Do	for headmen in general
6th	Do	Do	for head of clans.
5th	Do	Do	for young volunteers.
4th	Do	Do	for treasurers.
3rd	Do	Do	for soldiers.
2nd	Do	Do	for writers and menial servants.
1st	Do	Do	for watchmen, camel drivers and the like.

Each arrow was of three grades.[1]

The affairs of the state were likewise divided into four departments corresponding to the four elements, *viz.* Atishi (fire) Hawai (air), Abi (water) Khaki (earth and a minister was appointed on each department. The fire department dealt with artillery, direction of armour and arms, making of weapons of arms, various types of engines and such other things connected with fire. The air department was concerned with wardrobes, kitchens, stables, management of mules, camels, etc. The water department was concerned with the affairs of the syrup manufacture, wine sellers, digging of canal and all works relating to water and rivers. The earth department was concerned with affairs of agriculture, building and administration of exchequer, lands and some other things.[2]

The above classification of population clearly excludes business men, merchants, traders and artisans. It includes only the departments of the state and those of palace, and has no relationship with the people in general.

Akbar's classification, though much simpler is an improvement over the former in the sense that, in this, account has been taken of the whole population in the country. The whole society was divided into

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dance as Aurangzeb had banished these mundane varieties from his court in the 11th year of his reign (1667).

1 Khwandamir, *Humayun Nama*. Per. Text, pp. 39,42.

2 Khwandamir, *Humayun Nama*:. Per Text, pp. 48: The names of the Ministers are Fire—Khwaja Hamidul mulk, Air—Khwaja Latif Ullah; Water—Khwaja Hassan; Earth—Khwaja Jalal Uddin Mirzabeg.

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three classes. The first class was composed of the mansabdars (officials, the courtiers and favourites) with the king at the apex. This class lived in magnificent spendour by spending the hard-gotten money of the two classes. Their motto was "live beyond the income." They were veritable parasites devouring what the others produced—vampires sucking the life-blood of the nation."[1]

The second class was a small class of men who were engaged in trade and manufactures. Their sole anxiety was to be in the good books of the officials. They had always to pose as poor or else they would be devoured by the 'sharks at the imperial court'.

The third class formed the bulk of the population. In numerical strength they far superseded the first two classes combined but they lacked power and position. They existed to be exploited by the first group. The second group mainly was concerned only with the transmitting agency—receiving from the third group, and passing it on, with some of their money added to it, to the first group.

During the times of Jehangir, there were three classes of people who were indeed mainly free, but whose status differed very little from voluntary slavery—workmen, peons, or servants and shop-keepers. For the workmen there were two scourges, the first being of low wages, 5 to 6 dams, and the second consisted of the governors, nobles, diwans, kotwals and Bakhshi and other royal officers. If any one of the latter class wanted a servant, the man was not asked if he was willing to come, but was seized in the house or in the streets and paid half of his wages or nothing at all. Peons or servants were exceedingly numerous in the country. Every one from amongst the soldiers, merchants or the state officials, kept as many servants as his position and circumstances permitted.[2]

The mountain and the forest people also formed a part of the population. But they did not exert any influence on the economic life of the country. People of all Asiatic races lived here, Persians, Tartars, and Armenians. Jews were held in contempt. Though in stature they were like Europeans, their complexion was brown and were well-built. Many Muhammedans except the priests shaved off their beards but left the moustaches. They bathed frequently and anointed themselves with precious ointment or oil.[3] Moreland maintains that materials do not exist for a precise and scientific classification of the remaining elements of population but for our purpose they can be studied most conveniently into two groups, the first of which is of interest mainly from the point of view of consumption, while the second comprises the classes whose principal importance is found in

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1 Pant, *Commercial Policy of the Mughals*, p.65.

2 Moreland and Geyl, *The Remonstratie of Pelsart*, pp. 61-2.

3 De Laet, *Description of India and Fragment of Indian History*. Eng. T.

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production. The former group included the court and the imperial service, professional and religious classes including mendicants and ascetics and domestic servants and slaves. The second group consisted of people engaged in agriculture, industry and commerce.[1] The class of zamindars was also important in those times. The classification of Akbar continued up to the reign of Shahjehan. All labour in Aurangzeb's reign was classed according to religion professed. "The Hindus were disallowed from holding any appointment in the government but that of menial servants, or ordinary foot soldiers in the army. The Sunnis were in glory under Aurangzeb. But, as the demand of the army was insatiable, Hindus were compelled to join it under most disadvantageous terms."[2]

Caste System and the Apparenticeship System for the Training of Artisans

The history of the Mughals has a practical value to the peoples of India, for there is practically no difference in the Indian society of the Babar's times, and the Indian society of today which is roughly divided into Hindus and Muslims, who form its main pillars. The Hindus, as today, were divided into castes, four varnas. Brahmans, Khsatriyas, Vaishyas and the Shudras, each of which in turn is divided into innumerable sub-castes or sects. "Between 1000 and 2000 different castes and sub-castes are recognised in India, and these can be arranged more or less in a scale of social precedence, each having its own status, its own rights and duties, and its own rules and ceremonials."[3] The word 'caste' which had obtained such a wide currency in literature of sociology comes from the Portuguese adventurers who followed Vascodagama to the west-coast of India. The word itself is derived from the Latin "castus" and implies "purity of blood." A caste may be defined as a collection of families bearing a common name which usually is associated with a specific occupation, claiming a common descent from a mythical ancestor, human or divine, professing to follow the same calling regarded by those who are competent to give an opinion as forming a single homogeneous community. All over India we can trace the gradual and almost insensible transformation of tribes into castes. The main agency at work is fiction."[4] In the earlier ages right from the Epic times, the Brahmins were in charge of intellect and conscience, Kshatriyas in charge of protection of life and property, Vaishyas

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Hoyland (1928) Chap. III. p. 80. Polsart and Terry have the same view.

1 Moreland, *India at the Death of Akbar*, pp. 26-7.

2 Pant, *Commercial Policy of the Moghuls*, p. 226.

3 Vera Anstey, *The Economic Development of India*, p. 48.

4 *Imperial Gazetteer of India*, Vol. I. Chap. III. 311.

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in charge of commerce and Shudras rendered menial-services.[1] "The barriers among the minor sub-division are very formidable and insurmountable."[2] "The caste system is based upon two principles, *i.e.* the doctrine of Karma, and the religious unity of the family."[3] The caste of the Hindus was fully exploited by the Mughals. The Rajputs were fully bought over and the Brahmins mercilessly persecuted.

Each caste is a trade guild, mutual assurance society or a religious sect.[4] The social division of labour into Varnas was a necessity arising out of growing variety of productions and functions. "When society has not been overtaken by the mad race of production, for exchange, for profit, for cheapening of commodities; etc. the social division merely helps production by raising quality and the use of the value of the product."[5] Caste division brings specialisation. Both the product and the producer are thus improved.[6] This was the foundation of the stability of the Varna system in so far as the caste coincided with occupation.

As a trade union, the castes insist upon proper training of the youths of its crafts, regulate the wages of its members and deal with delinquents and promote good fellowship. The famous fabrics of mediaeval India and its chief local industries in our own day were developed under the supervision, of caste guilds of this sort. Such guilds may still be found in many parts of India. "In Ahmedabad district each different trade in manufacture forms a separate guild. All heads of artisans are ranged under their proper fold. . . Within the guild the interest of the common trade sometimes overpowers the race element of the caste."[7] In many parts of India, Brahmins may be found, earning their livelihood as "potters, shepherds, cultivators, fishermen side by side with others who would rather die than do menial labour or eat food prepared by a menial."[8] The classification of caste rested, as at present, upon the employment of the people. According to Mr. Hunter there are 590 kinds of Kshatriyas. Different castes specialised in different occupations. The Vaishyas instead of tillers have become merchants and bankers. In South India the goldsmiths claimed to be Acharyas or spiritual grandees. Such a rise in social status is a distinctive self-assertion by individuals. There are right-hand, higher, or left hand, lower castes. In Bengal many low caste people have changed their occupations and vocations. With the guild the interest

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1 *Ain* III. Eng. Tr. Jarrett and Sarkar, p. 127.

2 Pant, *Socialism : Its Embroyonic Developnent in India*, p. 95.

3 Vera Anstey, *The Economic Development of India*, p. 49.

4 W.W. Hunter, *Indian Empire*, p. 182.

5 S.A. Dange, *India from Primitive Communism to Slavery*, p. 118.

6 Marx, *Capital*. Vol.I. Allen Unwin. Ed. by Dona Torr, p. 350.

7 W.W.Hunter, *Indian Empire*, p.182.

8 W.W.Hunter, *Indian Empire*, p. 174.

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of the common trade sometimes overpowers the race elements of the caste. Thus in Surat each class of craftsmen although including men of several castes and races combine to form a guild with a council, a headman and a common purse for charity and entertainment. "But indeed in Ahmedabad, Broach and many industrial centres the trade organisation guilds exist side by side with race structure of the caste. A twofold organisation also appears in village communities. Castes regulate the theoretical position of any rank within it, but the low castes often claim the headship in the village government."[1] The trade guilds in the cities and the village community throughout the country act together with caste as mutual assurance societies and in ordinary times see that no one is without employment. Castes and trade or agricultural guilds try to occupy the place of poor law in India. What is true of caste today, was true hundred of years before also, even long anterior to the beginning of the Mughal rule.

The caste organisation in order to be effective in its operation possesses weapons for defending itself against lazy and unworthy members, otherwise, the responsibility which the caste discharges with regard to feeding its poor members would be liable to abuse. Truly speaking the caste or the guild exercises control from the birth to the death of the member in the Hindu fold. A member behaving well attains social distinctions. The caste has punishments also which consist of fine and excommunication. The fine takes the form of feasts to the male members of the community as an ordinary means of purification or for making amends to the ordinary breaches of the caste rules. The excommunication strikes three ways : an interdict against eating with other members of the caste, an interdict against marriage, debarring the delinquent from respectable contacts and cutting off the member from the general community by forbidding him the use of the village barber, washerman, priestly adviser and the sweeper. The punishment of excommunication can be withdrawn upon the offender's acceptance of the guilt and payment of the fine. Such caste restrictions have exercised great restraints upon the unworthy members of the community. Expulsion from caste is an effective weapon against the wrong-doer. Such is a brief survey of the nature and divisions of the society into caste amongst the Hindus who even after 3000 years have not been able to shake off the shackles they put on.

The differences amongst the castes were such that we find travellers speaking of Banias and Gujratis as nations distinct from Brahmins or Rajputs. The Sikhs were during the Mughal period regarded

1 *Ibid.*, 184

In the Barisal subdivision of Bengal, where there were 5818 villages, 3524 belonged to the Shudra caste down to the low skinners, corpse bearers; 15 Brahmins and Rajputs, 4 Kayasthas, 13 Christians and the rest Muslims. In South India also the village headman belong to the low castes and cannot sit with his colleagues in the village governments. He therefore hands up his staff which is set in the place of honour while he himself sits in the outside.

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merely as a sect of the Hindus, and from the economic point of view the Christians of the South may apparently be placed as resembling the the people amongst whom they lived, specially in essentials. About the 16th century Terry remarks, "Their profession is good for the most part in all kinds of husbandry."[1] Mundy, some little time afterwards, speaks of them as cultivating palm trees and Monserrate was unable to distinguish them from the rest of the crowd of what he calls heathens. Thevenot found them a commercial people in Surat while in the middle of the 16th century Gercia de Orta knew some of them as traders in Cambay and Bassein and says that they were regarded as Jews by the Portuguese.[2]

The Muslims formed a whole homogeneous mass, and though internal divisions amongst them existed, they were not insurmountable. They had great liberty so far as social laws were concerned. There was a tendency amongst them to combine religion with politics. And this made their bond of union stonger and lasting to the distinct cost of Indian nationalism.[3]

Training to Artisans

The caste organisation was itelf a training ground for the artisans. Various occupations were hereditary as castes were the representatives of the various crafts. From father to son, by heredity and family training, the skill in the artist was handed down. In the days of the Mughals we find no mention of the existence of schools and colleges for the training of arts and crafts. Babar writes : ". . . .another, advantage of Hindustan is the infinite number of craftsmen of all professions and industries which abound in it. This is not perhaps as astonishing, when one considers that industries are practised in the family being handed in from father to son."[4] Abul Fazl mentions, "Skilful masters and craftsmen have settled in the country to, teach people an improved system of manufacture."[5] Very ably Pelsart sums up labour in *Jehangir's India*. He says ". . .Workmen's children can follow no occupation other than that of their father, nor can they marry with any other caste."[6] "The embroiderer brings up his son as an embroiderer", says Bernier, "a goldsmith's son becomes a goldmith and a physician of the city educates his son for a physician. No one marries but in his own caste and profession, and this custom is observed almost

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1 Edward Terry, *Voyage to the East Indies*, p. 377.

2 Garcia. p. 445: Travels of Petermundy in Europe and Asia II (Hakluyt Socs. 1914) p. 306; Monserrate *Mongolical Commentarius. Memoirs of the Asiatic Soc. Bengal* Vol. IX. p. 513 Garcia da Orta, *Colloquies of the Simples and Drugs of India*. Eng. Tr. Sir S.C. Markham, London 1913, p.445 Thevenot as quoted by Moreland, *India at the Death of Akbar*, p. 23.

3 Pakistan's separation is an example on the point.

4 *Tuzak-i-Babri*: Pt. pp.213; Illminski p.37; Pde Courteille Is, pp.226-30; Rushbrook Williams. p. 139; *C.H-I.* Vol.IV.p.14.

5 *Ain*, Abul Fazl (PT) p.78; Eng. Tr. Blockman, pp. 93-4 (1939)

6 Morelend and Ceyl, *Demonstrantie of Fransisco Polsart*, p.61.

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rigidly by the Mohammedans as by the gentile to whom it is expressly enjoined by the law."[7] "Skilful artisans," says Sir Jadunath Sarkar, "trained in the imperial workshops, specially apprentices, after completing their technical education, found employment with the nobles and the Rajas, as all of them were not required by the Mughal government. In this way their skill was transplanted all over the country. The most notable instance of the diffusion of their talent and elevation of the cultural level of the country by the action of the court is supplied by the School of the careful painters and musicians."[1]

There was no state-control over conditions of employment in any industry. Employers were free to do what they liked with the result that Indian labourer was exploited to the fullest extent possible. Hours of labour were inordinately long. There was no regulation for the age at which children could be employed; there was no periodical or weekly holiday and there was no legislation to safeguard Indian workers from injury through accident caused by entanglement with unfenced machinery. That there was no interest for the artist to willingly impart his efficiency in the art is clear from the remarks of Bernier. Writing to Colbert he says, "No artist could be accepted to give his mind to his calling in the midst of the people who are wretchedly poor, or who, if not, assume an air of poverty, and who regard not the beauty or excellence, but the cheapness of an article; the people whose grandels pay for the work of art comparatively under its value according to their own caprice and who do not hesitate to punish an unfortunate artist or tradesman with the Korrah, the long and terrible whip hanging at every Umrao's gate."[2] The artists could not attain to any distinction in society, nor could they devote their earnings for bettering their status or even owning a decent residence for themselves or even purchasing a plot for their progeny. The artist could never venture to indulge in fine dress. The Ruler and the Umraos maintained them in their karkhanajats and as such their art did continue either "by the hope of the reward or the fear of the korrah." The protection afforded by the Rulers, rich merchants and tradesmen who paid rather better wages, tended to preserve the art.[3]

4. Supply of Industrial Labour

In his letter to De la Motha Le Vayer, Bernier (1663) pointed out that there were no workshops of the artists in Delhi not because the people did not cultivate the art but because of the abominable treatment that these people received from those who extorted fine art from them. The genius of the workmen was apparent from the instances of handsome pieces of workmanship made by persons destitute of tools and those who could scarcely be said to have received any training from any master in a regular way. If proper encouragement would have

1 A. Constable, *Bernier's Travels* Vol.I.p.259.

2 Sarkar, *Studies in Aurangzeb's Reign*, Chap. XVII p.233,

3 *Bernier's Travels* I, p. 228

4 *Bernier's Travels* I, p. 251.

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been afforded to fine arts, these would have flourished. The artists who arrived at any eminence in their art, were only those fortunuate few, "who were in the service of the king or some powerful Umrao and who worked exclusively for their patron".[1] The Mughal Government supplied its own wants by becoming a producer of nearly all its goods. In the 16th and the 17th centuries, the country was in an undeveloped form economically. Like the modern times there were no private organisations of production; means of transport were few and the "government itself took a somewhat patriarchal attitude in dealing with its servants and subjects."[2] The state karkhanajats and factories necessitated by the circumstances had existed in the country from earlier times. Even in the times of Sultan Firoz Tughlaq in the fourteenth century there were 36 karkhanajats on which fifty lakhs of rupees were spent every year at a time when "the rupee had 25 times its present purchasing power."[3] Afif's *Tarikh-i-Firoz-shahi* gives a detailed description of the management of these factories whose annual accounts were submitted separately along with detail showing the balance of stores. A separate finance department was created for these factories which on the regular side included the karkhanajats of elephants, horses, stables, camels, candles, kitchen of butchery, water-cooling and dog-vennels. The irregular karkhanajat concerned insignia, carpet-stores, and new goods annually produced.[4]

In Akbar's reign, says Sarkar, "About the end of the 16th century the system of palace workshops had expanded, as was to be expected from the development of civilisation for 250 years.[5] In the 30th year

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1 *Ibid.*, pp. 255-6.

2 J.N.Sarkar, *Mughul Administration*, Chap. X, p. 181.

3 Sarkar, *Mughal Administration*, p. 181

As compared to 1939 when there were 226 crores worth of currency notes, and 120 crores of coins, in 1950-51 there were 1495 crores worth of currency notes and 151 crores of coins, *i.e.*, the number of currency notes and coinage was 4.6 times the figure of 1939.The Index number of raw material with base 1939 (taken as 100), the Index Number in June 1951 was 688.9 (See *Eastern Economist*, Dec.14th 1951 Vol.XV I4 No.23 pp. 970-2).

Sarkar wrote for 1905 (the year of publication) and as such today the rupee will be nearly 115 times worth.

4 Eliot, Vol. III, p. 348.

The pay of these departments alone was 136,000 tankhas, in addition to which the cost of the furniture and the monthly salaries of the officers concerned amounted to 160,000 tankha silver. In the winter season 6 lakhs tankas were spent on wardrobes alone besides the outlay on summer and spring 80,000 tankhas on alam-khana besides salaries and wages of officers and workshops. On the carpets department alone over two lakhs were spent. This shows that the estimate of Jadunath Sarkar is correct.

5 Sarkar, *Mughal Administration*, Chap. X. p. 182.

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of the divine era, according to *Ain-i-Akbari* (1595 A. D.) there were more than a hundred offices and workshops each "resembling a city or rather a little kingdom and by unremitting attention of His Majesty, they were all conducted with regularity and were constantly increasing their improvement being accompanied by additional care and supervision on the part of His Majesty".[1] After sixty years, Bernier saw them and left an eye-witness account of them. He says, "Palace workshops called Karkhanajats were seen in Delhi palaces—hall for embroidery, gold-smiths, painters, varnishers, lacquer work, joiners, turners, tailors, shelf-makers, silk and brocade manufacturers, muslin and turban makers, girdle with golden-flowers and drawers worn by females, so delicately fine as to wear out frequently in one night. The articles of dress which last only a few hours cost 10 or 12 crowns or even more when beautifully embroidered with needle work".[2] No artist aspired for an improvement in the condition of his life. Dasturul Amals, the official manuals and certain other historical works composed at the end of the 17th century and afterwards also contain long lists of karkhanajats.

In the provinces there were factories at Lahore, Agra, Fatehpur, Ahmedabad, Burhanpur and Kashmir. The governors of various provinces could not have maintained factories of their own except on a very little scale as they were liable to frequent transfers. "But they patronised local work of art as they had to supply all the same with choice of specimens."[3]

Manucci's statement corroborates the above remarks.[4]

5. Method of Recruitment

As described above there were no trade unions or trade guilds though the system of caste organisation did approach to a rough semblance of such institutions. The professions had acquired hereditary character. In karhanajats of the provinces or the capital, the sons and near relatives of the artisans could, it appears, bring in their own men to take up the job when more labourers were needed. We have described at length how in times of emergency the labourers could be made to work on meagre wages, and even on some occasions on the fear of Korrah. Though the wages were not satisfactory, considering the high standard of work, the living conditions were not worse off than what they are today. There was no unemployment amongst the labourers. As the means of communication were not developed, mobility of labour was rather too little, though of course towards the capital it was often apparent because demand for labour in the capital was too great. "Not that labour was required for any productive purpose;

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1 Abul Fazl *Ain*. Eng. Tr. Blockman 1. p. 12.

2 *Bernier's Travels*, p. 259.

3 Sarkar, *Mughal Administration*, p. 189,

4 Manucci, *Storiya de Mogor*, Pt. II, p. 431

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it was simply needed to enhance the reputation of the employer. The greater the number of sevants one kept in India the greater the prestige".[1] At Qasim-bazar in Bengal in the middle of the 17th century the Dutch employd 700 to 800 silk weavers, and the English and the French, probably 300 to 400 each, but mostly in the cottages of these men.[2] The labourers seemed to have lacked vision, foresight and even the integrity of purpose so necessary for a better wage. Dr. Marshall rightly says, "Poverty is the cause of all degradation." Tavernier has made a reference to the deceits committed by the labourers in the manufacture of silk wares, calicuts, embroidered cloth and indigo, etc.[3] The brokers acted as middlemen who earned their own profit at the cost of the labourers who could not even take their evening meals and contented themselves only with a little sweetmeat and a glass of water at the brokers' house. "Above all things they (labourers) caution him (broker) to look to his bits and to cheat than to be cheated."[4]

During Aurangzeb's reign, forced labour was a distinguishing charac- teristic of the king who made the policy worse by giving it a religious tinge. Aurangzeb being against art of anyform, the demand for labour was rather limited. He had no appreciation for beauty and workmanship. Dr. Pant rightly observes, "Appreciation of beauty was to him akin to idolatry. There was no demand for Hindu intellectuals, no demand for artisans, whether Hindu or Mohammedan. Labour consequently became immobile. Only force could make it move. Labour reached its nadir in the reign of Aurangzeb."[5] Use of force has been our labourers' lot right from the early Sultanate period. In 1938 A. D. Temur had forcibly sent the good masons of India to Samarqand for the construction of the Great Friday mosque which he designed to raise in his capital.[6]

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1 Pant, *Commercial Policy of the Mughals*, p. 70

2 *Bernier's Travels*, Pt. I. p. 4540.

3 Tavernier, *Collection of Travels*, Byck II, Chap. X, pp. 131. 2.

4 *Bernier's Travels*, II, p. 66.

5 Pant, *Commercial Policy of the Moguls*, p. 226.

6 *C.H.I.* Vol III. Chap. VII, p. 199.

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CHAPTER 4

EFFICIENCY OF LABOUR

1. Economic Aspect

We have seen in the preceding chapter that the period under review having lacked growth of industrial organisation, there was no state control over conditions of employment in any industry. Employers, the central and the provincial karkhanajats, the nobles, the Umraos, the contractors and the like, were free to do what they liked, with the result that the labour supply was exploited to the fullest extent possible. Long hours of work, low wages, bad conditions of employment, absence of state regulation for the welfare of the labouring classes, all combined to produce an adverse effect upon the efficiency of the labourer.

Judging from the modern standpoint, labour supply depends upon the size of the population and the efficiency of the labourers. The first point has been fully discussed in the two earlier chapters. The term 'increased efficiency of labour' according to Dr. Marshall signifies the capacity of the labourer to do more work or better work or both during a given period of time. Efficiency is thus consequent upon the capacity of the labourers to exert themselves upon their willingness to work which ultimately recoils upon the standard of living—healthy and nutritious food, adequate clothing and airy shelter associated with healthy recreation.[1]

Exactly like J. Stalin, Shershah believed in the maxim: "In مراعات دهقان دن از بهر خویش—که مزدور خوش دل کند کار بهش thy own interest provide facilities to the agriculturists. A happy labourer works more."[2] Prof. A.C. Pigou emphatically adds, "The essential point, however, is that in each several industry, for each class of workers, there is some length of working day, the overstepping of which will be disadvantageous to the national dividend."[3]

These sound principles having been overlooked, the standard of efficiency could not prove beyond a certain level which more than satisfied the demand of the times. It appears that the skill was there, but lack of wisdom and foresight failed to evoke a material appreciation by way of definite attempts for the welfare of skilled and unskilled labourers. Speaking of raising the productivity of labour, Lenin adds, ".... A condition of enhancing the productivity of labour, is first the raising of the educational and cultural level of the masses of

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1 A.C. Pigou, *The Economics of Welfare*, Pt. IV Chap. XII, p, 721-2. Marshall, *Principles of Ecanomics*, p. 540.

2 Abbas Sarwani, *Tauhfa-i-Akbarshaih*. Per. MSS. (S.B.U.), p. 16.

3 Pigou, *Economics of Welfare* p. 429.

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population."[1] In the period under review even this was neglected. Les us examine in detail the conditions prevailing in the period for a correct estimate of the actual standard of efficiency.

2. Efficiency of Labour

Speaking of labour's efficiency under state patronage Abulfazl in his *Ain* has referred to the care and attention bestowed by the King upon the manufacture of various stuffs in the state Karkhanajats. The karkhanajats, the imperial work shops and the cities of Lahore, Agra, Fatehpur, Ahmedabad made skilful products of art in a variety of fashions which astonished foreign travellers. His Majesty personally acquired all necessary theoretical and practical knowledge of the existing arts and the workman considerably improved. Hand-weaving and silk spinning were improved and the imperial workshops furnished articles manufactured in European, Iranian and Mongolian countries. "A taste for fine material became general, and the drapery used at feasts surpassed every description."[2] Sir Jadunath Sarkar rightly maintained that Masulipattam in the Golcunda kingdom was the home of many artisans skilled in calico printing and many letters of Aurangzeb, then Viceroy of the Deccan, exhibit his ardent desire to send some of the artists to the state factories of Agra and Delhi.[3] This was practically forced labour.

Besides, the articles of luxury consumption also occupied the attention of the artisans, the kings, the nobles and the export traders. The articles produced after satisfying the pleasure of the king, were presented to the nobles as a matter of administrative practice and the rest were sold to the private persons.[4] The nobles engaged small number of artisans for manufacture of rare presents to the king and this did mean an encouragement to the art. For articles of day-to-day use, patronage was afforded by the foreign travellers. They followed the mediaeval custom of giving "Dadam" or an advance to the workmen and looking after them in their cottages, very few articles being produced in the kothis or factories.

Speaking of the efficiency of Kashmir labourers, Bernier speaks of the high workmanship displayed in the manufacture of palkeys, bedsteads, boxes, spoons and various other things of domestic use. Varnishing, imitating the beautiful veins of certain wood, inlaying gold thread with elegance and perfection, embroidered shawls, Tous

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1 Lenin, *Selected Works*. Pt. II. (Moscow 1947). Eng, Tr. p. 326. Stalin. *Problems on Leninism*. p. 526. (Speech at the First Union Conference of Stakhanovitee Nov. 17, 1935). "Life has become more joyous. work goes well. Hence the high rate of output. Hence the heroes and heroines of labour."

2 Abul Fazal, *Ain*. English Translation, Blockman I.p. 39-4(1939 Ed)

3 Sarkar, *Mughal Administration*, Chap. X., p. 190

4 Sarkar, *Studies in Aurangzeb's Reign*, p. 276-2

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shawls costing even Rs. 150. and Masulipattam chintz exhibited the efficiency of the labourers.[1] Tavernier likewise refers to the high efficiency of Brampur weavers in making clear and white calicuts which were transported to Persia, Turkey, Muscovia, Poland, Arabia, Grand Cairo and other places. Likewise efficiency of Sironj chintz painters and manufacturers has been praised. Says he ". . . . .Calicut at Sironj is so fine that you shall appear naked by putting it on. . . .The governor sends it to Lords and the Mughal seraglio. Women of harem make garments for hot weather and the kings are glad to see them dance in this cloth garments."[2] Likewise efficiency of silk stuffs of Ahmedabad manufactures has been highly spoken of. Tavernier also praises muslin manufactures of Malwa. *Mirat-i-Ahmadi* refers to the efficiency of weavers in the art of weaving golden and silken stuffs such as kinkhabs, velvet gauze, and embroidery unequalled in India for calour and beauty. Durate Barbosa speaking of the arts and crafts of Bombay, pays high tribute to the genius of the skilled mechanics and craftsmen of all types "not less experts than weavers and artisans of the Flemish towns of this period."[3] Among the many commodities produced by them are mentioned cotton fabrics of many kinds, silk cloths, velvets, satins and thick carpets. Barbosa specially mentions the great quantity of ivory employed in the laid and cunningly turned articles such a s bangles, swords, hilts, dice, chessmen, chess boards and bed-stands. At Bassein Pyrard de Lavel found efficient ship and boat-builders in 1609.[4]

3. Wages

According to modern economists the remuneration of the labourer is wages which might either be in the terms of money in which case it is called 'money wage' or it might be in terms of 'necessaries, comforts and luxuries' in which case it is called 'real wages'. As Pigou holds, wages and standard of living are closely connected and act and react upon one another through the medium of the efficiency of the labourers.[5] The same view is held by Pigou :

"The information necessary for a comprehensive study of the

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1 *Bernier's Travels*, Vol. I, pp. 402-3-4. The *Ain* contains some important information on the industry of Kashmir which will be discussed in the Chapter on *Industries*. (*Ain*. I Blockman, p. 97)

2 Tavernier, *Travels*, pp. 29,32.36;

Hussain Md. Khan. *Mirat-i-Ahmadi* Per.MSS. (S.B.U.) p.62; Eng. Tr. of Mirat by Ali & Sadan, p.7

Commissariat, *History of Gujrat*, p. 102.

3 Barbosa, p. 114; Commisariat, *Hist. of Gujrat*, p. 262.

4 *Voyage of Pyrard de Laval* (R.Soc.), p. 188.,

Commissariat, *Hist. of Gujrat*, p. 534.

5 Seligman, *Principles of Economic*, p. 411. Seager, p. 222.

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industrial wage system in India has not yet been collected."[1]

It is not possible to form an accurate idea of the economic condition of the people without a knowledge of the income of wage earners and prices of necessaries of everyday life. There is a dearth of adequate material on wages and prices in the period under review, and as such an approach for a correct estimate of the general standard of living of the labourers of the period is not feasible. Our aim in the examination of the little data available is not to offer any comparison between the general price level, wages and cost of living of the labour class in the Mughal period with data available in the modern times. The evidence available may be examined under two heads :—

i. The Ain-i-Akbari

The *Ain* gives a long list of wages paid to artisans engaged in different crafts and vocations in Akbar's time. Though exhaustive the list is silent about the source from which the data was collected or the area within which the rates of wages operated. The wages given in the *Ain* ranged from 2 dams to 7 dams per diem according to the standard of skill of the labourers, that is from the twentieth part of a rupee to 7/40th of a rupee as explained below[2] :—

i. Gilkars (Workers in lime) : First Class 7 dams, second 6 and third 5 dams.

ii. Sangtarash (Stone masons) : The tracer got 6 dams, one who did plain work got 5 dams ; a labourer employed in quarries got 22 jitals for breaking one maund.

iii. Carpenters : First class 7 dams, second class 6 dams, third 4 dams, fourth 3 dams, fifth 2 d. for each plain job A first class Carpenter got 1d. 17 jitals for one gaz second class 1d 6 j., third class 21 j.

iv. Pinjarsaz (A lattice-worker) ; First when the pieces were joined (fastened with strings) and the interscises to be dodecagonal; 24 dams for every square gaz, when hexagonal 18 dams; when jaffri (rhombus-like) 16 dams ; when shatranji as on chessboard 12 dam; for every square gaz.

v. Arrakash (one who saws beams) : For job work per square gaz 2½ dams if sisam wood ; razhn 2 d. A labourer employed for the day, 2 dams. There were three men for every saw, one above, two below.

vi. Beldars (Brick-layers) : First Class daily 3½ dams ; second class 3 dams; if employed by the job for the fortress walls with the battlements 4 dams per gaz ; for

1 Vera Anstey, *Ec. Development, of India*, p. 117.

2 Abulfazl, *Ain.* Per. Text. pp. 232-236 ; Eng. Tr. Blockmann I, p. 325.

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laying foundations 2½ dams ; for all other walls 2 dams ; for digging a ditch ½ dam per gaz. The gaz of labourer contained 32 tassuj.

vii. Chahkan (Well diggers) : First Class 2 dam per gaz ; second class 1½ dams ; third class 1¼ dams per gaz.

viii. Ghotakhor (divers) : They cleaned wells In the cold season 4 dams per diem ; in the hot season 3 d. By the job Rs.3/- per one gaz depth.

ix. Kisht-tarash (Tile-makers) : For 100 moulds smoothened 8 dams.

x. Surkhi-kah (Pounders of old bricks) : 1½ dams for a heap of 8 mans.

xi. Glass-cutters : 100 dams per gaz.

xii. Chappar-band (thatchers) : 3 dams per diem; by job 24 dams per 100 gaz.

xiii. Bamboo-cutters : dams 2 per diem.

xiv. Patal-band : 1 dam per 4 gaz.

xv. Lakhira: They varnished reeds, etc. with lac. 2 dams per diem.

xvi. Ab-Kash (water-carriers) : 2 to 3 dams per diem.

Moreland classified the labourers in Akbar's time on the basis of figures adduced in the *Ain*, and says that the value of the dam could be taken to be 2 annas and 9 pies[1]. It is well to note that this value held good in 1920, the year of the publication of Moreland's book, *India at the Death of Akbar*. His classification is as follows :

Class	*Sanctioned Rate*	*Modern Equivalent*
1. Ordinary labourers	2 dams daily	5½ annas
2. Superior labourers	3-4 do	8-11 "
3. Carpenters	3-7 do	8½ as to Re. 1/4/-
4. Buildings	5-7 do	14 as to Re. 1/4/-

"These rates", Moreland observes, "applied primarily to expenditure in the Imperial Camp, which by itself formed the largest city in the Empire ; their purchasing power may therefore be calculated on the basis of the prices recorded by Abul Fazl....." [2] For a proper appreciation of the subject it is well to remember that though the wages paid in Akbar's times were small, their purchasing value was much greater than in our times. The table given below will make the point clear :

1 Moreland has calculated the purchasing power prevailing in the year of the publication of the book, *India at the Death of Akbar*. (1920).

2 Moreland, *India at the Death of Akbar*, p. 191.

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Articles	Price per md. or maund of 55½ lbs. avoirdupois at 40 dams to the rupee (Price in dams)	Obtained by unskilled at 2 dams per day	Obtained by skilled at 7 dams per day
		lb. oz.	lb. oz.
Wheat	12 equal to 194½ lb. per Re of 40 dams	9– 4	32– 6
Barley	8 do 277½ do	13–14	48–9
Rice (best)	110 do 20¾ do	1–0	3–8
(worst)	20 do 111 do	5–9	19–7
Mung pulse	18 do 123.⅓ do	6–3	21–10
Mash pulse	16 do 138¾ do	6–15	24–4
Moth	12 do 194½ do	9–4	32–2
Gram	16½ do 134½ do	6–2	21–7
Jowar millet	10 do 222 do	11–2	38–15
White sugar	128 do 17⅓ do	0–14	3–1
Brown Sugar	56 do 39½ do	2–0	7.0
Ghee	105 do 21.⅐ do	1–1	3–17
Sesamum oil(til)	80 do 27¾ do	1–6	4–13
Salt	16 do 138¾ do	6–15	24–6

This table[1] shows the amount of food commodities obtainable in Akbar's reign (about A. D. 1600) at average prices in normal years. The figures show that what was within the reach of an unskilled labourer of Akbar's time is as good as the payment of his successor of the mid-twentieth century. "Money payments", writes Pigou, "are interesting not in themselves but for what they enable those who receive them to buy."[2]

Maurice Dobb rightly adds, "The standard of life of wage earners will evidently remain unaffected if the money paid to them is doubled, but the amount available of the things which they ordinrily consume remains unchanged".[3]

ii. Foreign Travellers' Accounts

Before we discuss the evidence adduced by various European writers it is important to bear in mind that wages in the period under discussion were not uniform throughout the Mughal domains but uniformity did prevail in some localities. "Writing of Agra, Pelsart quoted one set of rates for all classes of artisans; a few yeass

1 The table has been compiled from *Ain-i-Akbari* Book 1; English Tr. Blockman I. pp. 66. 87. 235.

2 Smith, *Akbar the Great Mughal*, p. 390. Smith considers one maund equal to 55½ lbs following E. Thomas (*Chronicles*. p. 530). Hawkins defined Jehangir's maund equal to 55 lbs and De Laet held the same view.

2 Pigou, A. C., *Wage Statistics and Wage Policy* (Stamp Memorial Lecture 1949).

3 Maurice Dobb, *Wages*, p. 15.

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earlier, Methwold had noted the same fact on the East Coast ; and the existence of this uniformity would justify us in drawing inferences regarding workers in general from the data available for particular classes, provided they related to the area under consideration."[1]

For want of necessary data on the subject "we have to rely for comparative purposes on the monthly wages paid to the peons employed in European factories, that is to say, to servants with no exceptional qualifications".[2] But even this method is not free from defects as it is not certain whether monthly payments were for 30, 31 or even 40 days. According to Pelsart 40 days were often counted as one month in Agra and as such the salary of Rs. 4/- meant only a payment of Rs. 3/- for a month. Besides, deductions were made for clothes and articles given. "Since Agra set the standard in such matters for a large part of India, we may suspect that in some other places also monthly rates may contain a similar overstatement. A Dutch account tells us that the Governors (in Golcunda) paid their staff in rice and salt valued at one-third above cost."[3]

"The agricultural labourer", writes Moreland, "was ordinarily a serf, receiving in return for his work an amount of commodities determined by custom, and about sufficient to keep him and his family alive."[4] Custom determined wages of village artisans. "If Akbar's workmen received the full sanctioned rates they were rather better off than the modern workmen of the United Provinces, but not so well off as those of the Punjab ; it is more probable that they got something less than the sanctioned rates and that their actual position was little worse; but the general conclusion to which these figures point is that urban real wages in the north of India stood at somewhere about the same level in Akbar's time as in 1911, and that there has been no pronounced change in the standard of remuneration of these classes of the population."[5]

The *Ain* gives a long list of the prices of various commodities and wages of artisans engaged in the manufacture of gold stuffs, cotton and woollen goods and silk pieces[6]. Speaking of the manufacture of carpets it adds :—

"His Majesty has caused carpets to be made of wonderful varieties and charming textures ; he has appointed experienced workmen, who have produced many masterpieces. The gilims of Iran and Turan are no more thought of, although merchants still import carpets from Gashkan, Khuzistan, Kirman and Sahswar.

1 Moreland, *From Akbar to Aurangzeb*, p. 194

2 *Ibid.*

3 *Ibid* pp. 194-5:

4 Moreland, *India at the Death of Akbar*, p. 190.

5 Moreland, *India at the Death of Akbar*, pp. 191-2.

6 Abulfazl, *Ain*; English Tr. by Blockmann, pp. 98 to 102.

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All kinds of carpet weavers have settled here and derive a flourishing trade. These are found in every town specially in Agra, Fatehpur and Lahore. In the Imperial workshop single gilims are made 20 gaz 20 tassujes long, and 6 gaz 11½ tassujes broad at a cost of 1810 rupees, which those who are skilled in the business have valued at 2715 rupees."[1]

This speaks of the efficiency of the craftsmen and the large difference between the cost and retail must have been due to the profit and not higher wages.[2]

At Jehangir's death, a rupee meant 30 dams as compared to 40 during Akbar's reign. According to Careri in 1695 A. D. a rupee was valued at 54 paisas (one paisa was equal to half a dam). The ordinary labourer in terms of paisas received 3 or 4. Fransisco Pelsart writing at the end of Jehangir's reign (1626 A. D.) mentioned Rs. 3/- to Rs. 4/- as wages of servants for a month of 40 days. Dr. Radha Kamal Mookerjee doubts "that monthly wages were calculated at the rate of 40 days."[3] He places reliance upon Terry who mentions that wages were 5 shillings. The Account Book of Agra Dutch Factory (1637) shows that wages were monthly paid on the day of full moon and that the wages of servants were Rs. 3⅓ monthly, porters and sais (horsemen) Rs. 3/-, sweepers and washermen Rs. 5/- "A simple servant between victuals and clothing spends not more than Rs. 3/- a month", observes Petro Valle from Surat in 1623. In 1623-28 De Jongh gives 3 stivers or Rs. 3¾ per month as the typical rate of wages for Broach.[4] In 1634 A. D. wages at Surat were 3 to 7 Mahmudis per mensem (*i.e.* Rs. 2½ to Rs. 3½) but by 1638 wages increased to 8 to 10 Mahmudis.[5] In 1637 the Dutch paid generally Rs. 3½ to Rs. 5/- per month or 6 to 8 pice per day to ordinary labourers in their factory and 7 pice to superior man. Hawkins also mentions that the usual wages paid in the Mughal Camp and the Court were Rs. 3/- to Rs. 10/- per month. These figures indicate that wages were practically doubled in Jehangir's times. "In several instances the lowest grades of servants were entitled to less than 2 rupees monthly (65 dams for a sweeper, 60 for a camel driver, 70 for a wrestler, and so no), while the bulk of the menials and of ordinary

1 *Ain* 1. Blockmann, p. 57. *Ain* 21,

2 Maurice Dobb, *Wages*, p. 15 (Cambridge Economic Hand Book series He writes : "From the standpoint of owners of property the primary cost under a wage system will consist of the *wages* which have to be paid to procure the necessary labour supply. For any particular employer, of course cost will also consist of the raw material and fuel he has to buy, the wear and tear of machinery, and the rent he must pay and the interest on loan which he has to borrow.

3 Dr. Radha Kamal Mookerjee, *Economic History* 1600-1800 (U. P. Journal of Historical Society 1941 Dec. Pt. II. No. XIV), pp. 62-63.

4 Brijnarain, *Indian Economice Life: Past and Present*, pp. 7, 1113.

5 De Laet borrows Pelsart's figures in his description of India vide *De Laet*, pp. 89-90.

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foot soldiers began at less than 3 rupees. The minimum for subsistence at the Court is probably marked by the lowest grade of slaves, who were allowed one dam daily, equivalent to three-quarters of a rupee monthly in the currency of the time."[1]

Wages Compared

We have seen that in 1920 Moreland calculated 5½ annas as the then money equivalent of two dams which was a low wage for an unskilled labourer in the time of Akbar, but which could purchase 9/lb 4/oz of wheat or other articles of daily consumption, (as per table on page 67), of course rice and salt being dearer. That the wages were in some cases lower still is clear from the observations of the British Trade Union Congress Delegation to India (referred to on page 75) which reported in 1938 that "60% of the workers were in receipt of wages of not more than 1s. 2d. a day in the highest instance, scaling down to as low as 7d. to 9d. for men and 3d. to 7d. in the case of children and women. Many cases have been quoted to us of daily rates in operation which descend to 3¼d. for women and 7d. or even less for men"[2]. Again Mr. S. V. Parulekar, Indian Workers' Delegate to the International Labour Conference at Geneva in 1938 dwelt at length upon the actual wages on the basis of the wage census carried on by the Government of Bombay. In the Cotton Textile industry, the best organised of the industries, the monthly wages of 18 per cent of the workers were between 3s. and 9s. in Gokak, of 32 per cent of the workers in Sholapur between 7s. 6d. and 15 shillings and of 32% of the workers between 22s-6d and 30s in the City of Bombay. In unorganised industries, the conditions were worse.[3]

In the modern times, although money wages have risen, real wages have practically remained unchanged. Some persons have gone so far as to suggest that the possibility of the real wages rising all round is always fairly narrowly limited by the fact that the available supply of primary foodstuffs is for the time being fairly fixed and can only be increased after an interval of time".[4] The rising trend of population in this country hardly allows the increased production of foodstuffs to cope with the situation.

Prices rise and fall occasionally but wages (which usually contain a strong customary element) seldom fall as much as prices fall.

Conclusion

As for whether the present-day labourer is economically better off than one under the Mughal times in general and in that of Akbar in particular we cannot only look towards the wage figures adduced

1 Moreland, *India at the Death of Akbar*, p. 192.

2 A. A. Purcell and J. Hallsworth, *Report on Labour Condition in India*, Trade Union Congress, Rajni Palm Dutt; *India To-day* (1947), p. 318.

3 *Ibid.*

4 Maurice Dobb, *Wages*, p. 25.

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in the *Ain*, etc. It is true those few who were fortunate to get a job in the imperial or the provincial karkhanajats were better off than many labourers, of the present times. But as already pointed out in Chapter III, there was no security of employment, no fixed hour of work, no welfare and social-service provisions, no trade unions, and above all, the constant fear of forced labour and 'korrah' (lash) hanging at every Umrao's entrance gate produced an adverse effect upon the economic prosperity of the labouring class.

What trends the indices of prices, wages and the cost of living have followed will be clear from the statistical tables given in Appendix A comparison of which with table given on p. 67 explains (though roughly) the actual state of affairs.

"The labourer does not need money for its own sake," says Prof. Pigou. "What is of real importance to him are the real necessaries, comforts and luxuries which he can purchase with the money wage he receives."[1] On the application of this principle which is a universal truth for all times, the wages of labourers in the times of Akbar were not at least worse off than the present times. But the labourer of those times was too much dominated by the upper classes of society and even forced to work as discussed before.

The rates current on the east coast of India about the year 1820 were recorded by Methwold as follows : A master-workman 3d a day, their servants one penny less; household servants a rial of eight or two rupees a month. If we take rupee to be 2s. 3d. and take employment to be permanent and continuous then the best workman received Rs. 3½ and a domestic servant Rs. 2/-; ordinary artisan (servants of the master-workman) Rs. 1½ or even less per month. The wages of artisans were stable and there is no evidence to prove that urban wages rose higher.[2]

The Mughal emperors displayed great taste in the building operations, not in the works of public utility. Shahjehan was a great palace builder and donated huge sums to the members of his family and courtiers as discussed before. There appears to be no evidence on the treatment of remuneration of the large number of labourers employed on royal building operations. "The immediate effect of such undertakings was inevitably to hinder ordinary commercial aetivities. Thus all the carts at Agra were impressed for the works in progress at Delhi and on one occasion goods in transit for the coast had to lie on the way for some months, after "they had been by the King's officers cast down in the fields, and the carts taken for his use."[3]

There is no evidence of the wages earned by artisans. They are generally represented in contemporary records as having been badly circumstanced throughout the 16th and the 17th centuries. "The

1 Pigou, *Economics of Welfare*, pp. 467-8.

2 Moreland, *From Akbar to Aurangzeb*, p. 195.

3 Moreland, *From Akbar to Aurangzeb*. p. 196.

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some may be told of the craftsmen and industrial workers who frequently had to pay fines and "dassuri" to the superiors and were often forced to work for nothing during the reign of Akbar's successors. The circumstances indeed seemed to have deteriorated under Jehangir and Shahjehan and resulted in the time of Aurangzeb in constant migration under stress of poverty from rural to urban areas."[1]

4. Standard of Living

"It is stability of earnings that enables a well-devised standard of life to be built up, and not stability of wages."[2] The wages might have been stable in the period, but the earnings were not stable. The workman was the victim of low wages and oppression, a fact which has already been discussed. This was the primary cause of people of the labouring classes to lead a shabby life. Dr. Vera Anstey rightly adds, "How can efficient work and a high output be expected from people with such a low standard of life, and suffering from all the disabilities which must necessarily accompany the high birth and terribly high death and infant mortality rates ?"[3] Babar's remark in the beginning of our period that people went without proper clothes, rather naked, is a clear indication of the low standard maintained by labourers in particular. "Peasants of low standing went about naked."[4] Humayun in the words of Khwandamir brought "comfort and tranquilised the agriculturists and tenants upon whose exertions and labours, the management and existence of the world depends."[5] But nothing has been said about the labourers in general. Besides being trifling, wages were often in arrears. The shop-keeper or the retail dealer enjoyed more independence and was rather better off. The official tyranny was particularly noticed by Bernier at the close of Shahjehan's reign and both he and his compatriot Tavernier maintained that the conditions outlined above lasted about the year 1670.[6] Besides nobles and the Umraos, the only persons of the middle class, who lived in a style under Jehangir and Shahjehan were some of the Indian merchants who were Persians and even these were troubled by the local authorities.

Only those members of the professional class who were attached to the imperial karkhananjats were better off. Members of the professional class could not expect to earn anything like the fair income but the poorest of them were the artisans of the lower class who even during Akbar's reign lived at starving wages. During times of famine they

1 Edwardes and Garrett, *Mughal Rule in India*, p. 267.

2 Pigou, *Economics of Welfare*, p. 582.

3 Vera Anstey, *The Ec. Development of India*, p. 87.

4 *Tuzak-i-Babri* : Pt. pp. 211,
P. De Courteille II, pp. 226-30 ; Illminski, pp. 377-81 ;
Rushbrook Williams, p. 139 ; *C. H. I.*, Vol. IV, p. 14.

5 Khwandamir, *Humayun Nama*, p. 25.

6 Tavernier, *Collections of Travels*, p. 71, *Barner Travels*; Part 1, p. 256.

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must have been very hard pressed. In the background of their lives brooded the shadows of famine, which from time to time produced economic chaos and usually involved the break up of homes, "the sale of their children in slavery and sheer starvation"[1] Several European travellers—Linschotten, Hawkins, Salbank, Jourdan, Sir Thomas Roe, Pyrard de la Valle, De Laet, have testified to this fact while Bernier and Tavernier both lay stress upon the oppression practised by the official classes. The land was tilled only under compulsion and very often there was migration to the territories of the Hindu Rajas by persons weary of the Mughal tyranny. "So much is wrung from the peasants", wrote the Chief of the Dutch factory at Agra in 1616, "that even dry bread is scarcely left to them for their food. The artisans in the city live much better off than farmers." Van Twist lays emphasis on the contrast between the comfort and the poverty of the craftsmen. All contemporary accounts agree in describing the towns as very poor. The producer was at the mercy of the men accustomed to lavish display and luxury, who in circumstances and under conditions which debarred them from all efforts to develop the moral and material welfare of the agricultural and industrial masses, and which at the time obliged them to sequestrate for their own benefit, an unduly large proportion of the worker's gross income. The arrival of the Dutch and the English and other European powers brought about an increased demand for Indian manufactures from the times of Jehangir onwards and new processes in production along with new staples were introduced.[2] But the poverty of the masses and the indifference of the middle classes, too meagre a proportion, allowed the economic parasites to have their full hand to the detriment of the standard of living.

Moreland has painted a correct picture of the labouring classes. He adds, "Weavers, naked themselves, toiled to clothe others. Peasants, themselves hungry, toiled to feed the towns and cities. Men and women, living from season to season on the verge of hunger, could be contented so long as the supply of food held out : when it failed, as it so often did, their hope of salvation was the slave-trader, and the alternatives were cannibalism, suicide, or starvation."[3] The only escape from such a state would have been a genuine attempt to increase production and with it the advancement in the standard of living of the labourers. But such a wise policy was barred by political short-sightedness.

Speaking of the 17th century De Laet writes in the same trend. The daily wage of the labourer was very small, nearly 30 taccas (30 taccas equal to 24 stivers equal to one rupee) or four or five Dutch stuferi. The whole family ate together of one dish called khichery prepared of peas and a little rice with a little butter poured over it. In the noon they ate peas. They lived in huts with no furniture, only a few earthen utensils. They owned insufficient clothing to keep them-

1 Edwardes and Garrett, p. 275.

2 Edwardes and Garrett, pp. 276-7.

3 Moreland, *From Akbar to Aurangzeb*, pp. 304-5.

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selves warm and cosy during winters.[1] Varthema whose experience was practically contemporary with that of Barbosa quotes that at one place on the Malabar coast, the people lived very miserably. He comments upon the inferiority of house accommodation at Calicut, and elsewhere, valuing the houses at half a ducat or one or two ducats at most. Speaking of Vijainagar, he remarked that people went about naked with only one piece of cloth called langota reaching the knees. This remark is just similar to the remark of Babar for the North of India. Supporting Nuniz's description of the revenue system, Mr. Sewell held that ryots of Southern India were grievously oppressed by the nobles when subject to the Hindu principles of Hindu government. Both agree that the masses were in great poverty and distress. Speaking of the eastern coast Linschotten (1580-90) gives precise details of the poverty of the common people. He says : "They live very poorly, naked, and are very miserable, and for a penny, they could endure to be whipped and they eat so little that it seemeth they live by air, they are likewise, most of them, weak and of small limbs". Salbank writing of the people between Lahore and Agra adds, "The plebian is so poor that the greatest part of them go naked." Jourdan who had seen the country between Agra and Surat maintained that Indian masses lived like fishes in the sea, the greater ones ate the lesser ones. A few years after Sir Thomas Roe stated the same idea in more detail. In 1624 Della Valle gave a glimpse of Surat : "Wages were very low and slaves cost nothing to keep." Towards the end of the 16th century, Fitch made some notes on the dress of people in the Ganges plain. "At Benares," he says, "people go naked save a little cloth about the middle," For the residents of Tanda and Bacola near Chittagong, the same expression has been used. These statements have been corroborated by Abulfazl as regards Bengal in the *Ain* in the same tone, but he is silent for similar information regarding other provinces in the Empire.[2]

Both Pelsart and De Laet though rightly depicting the actual economic conditions of the workmen of the age have mentioned that the low classes were consuming butter every day with khichri. In the times of Akbar, as the price schedule clearly depicts, ghee and oil were much cheaper relatively to money and foodgrains. Salt and sugar were also cheap. As to the mode of dress, Barbosa mentions that shoes were in common use in the city of Baghela. Careri also mentions that shoes were commonly used "but he refers to upper classes. . . .the common people had only a few earthen utensils, bedsteads, bamboo mats and scanty bedding. Brass or bell-metal plates were not used generally by the poorer and lower classes. These have now made entry into the poor man's house."[3]

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1 De Laet, *Empire of the Great Mughal*, pp. 88-9.

2 Abulfazl, *Ain.* Eng. Tr. Jarrett and Sarkar. Pt. II, pp. 154.

Note : The above quoted authorities have been given in the Bibliography.

3 Dr. Radha Kamal Mookerjee, *Economic History* 1600-1800 *in* U. P. Journal of Hist. Soc, Vol. XIV. Pt. II. Dec. 1941, pp. 95-6.

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It is an irony of fate for the labourers of India that their condition is still the same and in many cases still worse though the fear of forced labour and the korrah have disappeared. This statement might appear startling on its face, but the facts as we shall later see justify the veracity of the remark. "Insufficient data exist for the actual measurement of changes of the standard of life in India, and even if some general index could be devised it would throw little light on the problem . . . "[1]

5. Modern Conditions

We are not surprised when referring to the tomb of Sikandra (Agra), Hawkins says : ". . . . It hath been there 14 years abuilding, and it is thought it will not be finished there seven years more, in ending gates, walls and other needful things, for the beautifying and setting it forth. The least that work there daily are 3000 people, but this much I will say, that one of our workmen will despatch more than three of them. . . "[2] The fact cannot be denied that the hot climate of India is responsible for a lower yield of work. A European workman cannot work half so much under our clime and low scale of remuneration and as such the comparison does not bear out. We can, however, compare the working conditions of the labourer in the modern times when the world has far advanced. Just as the grandeur of the Mughal court was based on the ruin of the nation, the glamour of the capitalists of the modern time is based upon the oppression of our workmen. It may be useful to recall the conclusions reached by the British Trade Union Congress Delegation to India which reported in 1938 :[3]

"All enquiries go to show that the vast majority of the workers in India do not receive more than 1s. per day. In the province of Bengal, which includes the lowest mean of industrial workers, investigation declared that as far as they could ascertain, 60 per cent of the workers were in receipt of wages of not more than 1s. 2d. a day in the highest instance scaling down to as low as 7d to 9d for man and 3d. to 7d. in the case of children and women. . . Many cases have been quoted to us of daily rates in operation which descend to 3½d for women and 7d. or even less for men."

With regard to the housing conditions of the workers, the same delegation reported[4] :

". . . . Here is a group of houses in 'lines'. . . . each house consisting of one dark room, used for all purposes, living, cooking

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1 Vera Anstey Chap. XVIII, p. 488 (XXV)

2 Foster, *Early Travels in India* (1583-1619), p. 120 ;
Pant, *Commercial Policy of the Moghuls*, p. 131.

3 A. A. Parcell J. Hailsworth, *Report on Labour Conditions in India* Trade Union Congress 1928. p. 10 : Rajni Palme Dutt. *India To-day* (1947). p. 318.

4 *Ibid.*, pp. 8-9 ; Rajni Pame Dutt, *India Today* (1947), p. 318.

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and sleeping, is 9ft. by 9ft. with mud walls and loose tiled roof. . . there is no ventilation in the living room except through the entrance door. ..the overcrowding and insanitary conditions almost everywhere prevailing demonstrate the callous and wanton neglect of their obvious duties by the authorities."[1]

Since then the British Trade Union has not sent any delegation to India. For a more recent picture to show how little these conditions have changed or have been changed for the worse, we may take the opinion of the Indian workers' delegate S. V. Parulkar to the International Labour Conference at Geneva in 1938 :

"In India a vast majority of the workers get a wage which is not enough to provide him with the meanest necessaries of life. The report of an enquiry by Mr. Finlay Shirras states that the industrialist worker consumes the maximum cereals allowed by the Famine Code, but less than the diet issued to criminals in jail under the Bombay Prison Code. The conditions have deteriorated since the publication of that report as the earnings are lower today than what they were in 1921."

Further the same delegate dwelt at length upon the actual wages on the basis of the Wage Census carried on by the Government of Bombay. In the cotton textile industry, the most organised of the industries, the monthly wages of 18 per cent of the workers were 3s. 9d. in Gokak, of 32 p.c. of the workers in Sholapur between 7s. 6d. and 15 shillings, and of 20 per cent in the city of Bombay between 22s. 6d. and 30 shillings. In disorganised industries the conditions were still worse.[2]

Even the Five Year Draft Plan prepared at the instance of the Government of India with Pt. Jawaharlal Nehru as its President has failed to provide a due relief to the labour class. The plan calmly speaks of reducing the number of workers engaged in the ordinary operations of farming. These dispossessed peasants cannot be absorbed in industrial expansion, as the expansion envisaged is a long-term plan. The plan mainly hopes to restore the industry to present installed capacity. The mass of pauperised peasants have not been considered. These will further lower down the wages with the consequence that the standard of life would be lower. The plan favours the freezing of wages but not the dividend. The industrialists have been warned that wages will not be increased.[3]

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1 Extract from the Speech of S. V. Parlukar, Delegate to the International Labour Conference at Geneva, July 1938, Rajni Palm Dutt : *India Today*, p. 319.

2 *Ibid.*

3 *Five Year Draft Plan* (1951) India, pp. 186.

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CHAPTER V

RAW MATERIALS

(1. *Cereals.* 2. *Fibres.* 3. *Indigo.* 4. *Sugarcane.*)

1. Raw Materials in General

Raw materials play an important part in the localisation of industries. These include agricultural raw materials consisting of food crops and non-food crops, forest produce, minerals and miscellaneous products. Besides acting as agents of production, they have acted as important articles of India's export trade from very early times. A scientific approach to the problem of agricultural raw materials requires a brief mention of the conditions under which agriculture was followed during the period under review. Both European and Indian writers of the period, though not interested in the subject as a whole, have made passing references to the various articles produced on land and the place they occupied in the commerce of the country. The methods of agriculture in the country have remained immune from any marked change. "India did not experience between 1600 and 1900 A.D. an agricultural revolution such as in some other countries coincided with the adoption of a policy of enclosure, or followed on the development of the modern ocean-borne commerce."[1] Since Akbar's times, however, changes are discernible in the minute details but they have not been materially effective to transform the system as a whole. The same old implements—the plough, the sickle, the ox, the same grains—wheat, millets, rice and pulses; the same oil-seeds and the same traditions "link us with the far earlier times in the history of the people.[2]" The details in the topic in the period under review were practically just what they are today. Describing the methods of irrigation followed round Agra, Babar says, "At the well edge they set up a fork of wood, having a roller adjusted between the forks, tie a rope over the roller large bucket, put the rope over the roller, and tie its other end to the bullock."[3] The same account is true even today. One person drives the bullock and the other empties the bucket. The *Imperial Gazetteer* mentions that a field of "black soil requires only one ploughing in the year and is seldom manured."[4] While making a reference to Gracia de Orta's note on the tillage in the uplands behind Goa,

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1 Moreland, *India at the Death of Akbar*, p. 101.

2 *Yajurveda* : Tr. into Hindi with original text by Jaideo Sharma, Arya Sahitya Mandal, Ajmer, Vol I Chap. XII, Shloks 68-72 pp. 488-90

3 *Tuzak-i-Babri.* per MSS. (S. B. U.). p. 153.

4 *Imperial Gazetteer of India*, Vol. IV, p. 66.

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Moreland continues that the "farmers do not till the land with manure and labour as we do. They sow on the surface of the earth with very little tillage."[1] This difference in the method of cultivation between the North and the South of India has been mainly due to the difference of soil conditions. The distribution of crops followed the lines determined by the conditions of soil and climate and with few exceptions the agricultural raw materials of the Mughal period were practically the same as they are today with less of specialisation, though the "huge jute industry of modern times, the growth of indigo cultivation in Bihar, and the immense development of wheat and sugarcane in the Uttar Pradesh were, of course, unknown in the Mughal age."[2] It may, however, be noted that some specialisation was not altogether unknown. Sugar was produced in Bengal and so was rice and indigo mostly in Agra and Sarkhej in Gujrat.[3] The distribution of rainfall was the chief determining factor.

2. Agricultural Raw Materials

The problem of agricultural raw materials requires a reference to the system of agriculture followed under the Mughals, and as such, a brief history of the policy of tenure and details of irrigation facilities and other connected items needs mention. Improvement of agriculture rests upon the methods followed—means of irrigation, supply of improved seed, cattle problem, system of land tenures and facilities of transport. And above all security from internal oppression under the period went a long way off to bring about a marked change in the speed of progress. Whereas the external oppression implied invasion of foreigners who brought with them death and devastation; the internal oppression meant severity of laws of taxation even beyond the tax-paying capacity.

The laws of Muhammad-bin-Tughlaq (1325-1351) were rigidly enforced with the result that landholders and peasants escaped to woods. But as we have elsewhere seen, Ghyasuddin had ordered his officers of the Exchequer not to assess more than 1/10th or 1/11th of the land produce either by guess or by computation. The officers were careful to improve cultivation which improved year by year. Something was to be left over and above the tribute, so that the country may not be ruined by the weight of taxation. The assessment was not to be excessive, otherwise, there was danger of farmers leaving their usual occupation. Under Shershah the freedom from internal

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1 Moreland, *India at the Death of Akdar*, p. 102.

2 Edwardes and Garrett, *Mughal Rule in India*, Chap. VII, p. 61.

3 Abulfazl, *Ain*, p. 126. Eng. Tr. Jarrett, Vol. II, pp. 134, 248 ;
De Laet, *Empire of the Great Mughal*, pp. 23, 71.
Sujan Rai, *Khulesat-ut-Tawarikh*, per Mss. (S. B. U.), p. 28.

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and external oppression soon drew influx of cultivators from all districts around, and all waste lands were cultivated.[1] Villages flourished.

In the times of Alaudin Khiljee cheap rates were brought about by disgusting appearances and oppression, but under Sultan Ibrahim Lodi there was abundance of harvests with the result that "ten maund of wheat could be purchased for one Bahloli; five seers of clarified maunds butter and ten yards of cloth for the same coin."[2] This was due to re-gularity of rainfall which brought about luxuriant crops. The *Tabqat-i-Akbari* maintains that Akbar made definite rules for bringing new lands under cultivation. The profits of the first year were divided betw een the government and the cultivator, on terms suitable to the latter. After careful consideration, it was arranged that the various parganas should be examined, and those which contained so much land as being cultivated would yield a crore of tankas, should be divided off, and placed in the charge of an honest and intelligent officer who was to receive the name of a krori, and a regular staff to be appointed under him. Improvement was marked at the close of Akbar's reign but old ideas did exercise their influence. "The subject farmer who occupied land had to pay a share of the gross produce to the king in return for the protection he received. Under the system, the question of land did not arise. The king required revenue and the cultivation of sufficient lands to supply his needs."[3] The payment of land revenue was regarded as a duty and was in some cases enforced by appropriate penalties. An English merchant reported in 1632 that the local governor of an Eastern Coast Province "cut with his own hands a village headman in two pieces for not sowing his ground."[4] This story might be an example of exceptional severity, but it does speak of rigour of tenure laws in the period. Raja Todarmal's assessment was a unique example in the world of agricultural development. All the parganas of the country dry, or irrigated, whether in the towns or in the hills, in desert, jungles, river reservoirs or wells, were measured and every such place of land was brought under cultivation.[5]

Regulations were circulated but not obeyed. A great portion of the country was laid waste through the rapacity of the kroris; the

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1 Abbas Sarwani. *Tahfa-i-Akbarshahi* Per. MSS (S. B. U.), p. 70 ; Bakhtawarkhan. *Mirat-i-Alam* Per. MSS (S. B. U), p. 577 ; *Tarikh i-Farishta* : Per. Text, p. 229.

2 Abdulla Wasaf, *Tarikh-i-Daudi* Extract from Elliot Vol IV, p. 431. *Tabqat-i-Akbari* : Per Text. Tr. B. De. pp. 174-5. *Tarikh-i-Farishta* ; Per Text. pp. 419-20.

3 Nizamuddin Bakshi, *Tabqat-i-Akbari* Per. MSS (S. B. U) p. 263. Eng. Tr. by B. De. pp. 175-6., Ain II., p. 68.

4 Moreland, *India at the Death of Akbar* p. 97.

5 Jarrett. *Ain*, Vol. II. (*Ain* XI), p. 68.

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wives and children of the ryots were sold and scattered abroad, and everything was thrown into confusion, but the kroris were brought to account by Raja Todarmal and many farmers died of the severe beating "which was administered, and from the tortures of pincers, so many died, after having remained in protracted confinement in the prisons of the revenue authorities, that there was no need of the executioner or the swordsman and no one cared to find them graves or gave clothes."[1]

Revenue Assessment under the Mughals

The Mughals did not introduce a new revenue system. Only the system consistent with Hindu or Islamic law was adopted. The ordinary Indian was not affected by conquest of a foreign invader. He was on the land, but under a different master. Due to the prevailing scarcity of silver currency, Ibrahim Lodi prohibited the assignees from taking revenue in cash. In the absence of a record of a change, it may be assumed, that the arrangements persisted in their main line under Babar and Humayun, and the basis of Akbar's distinctive system is to be found in the reorganisation effected by Shershah. In 1540 he took 1/3rd, an old practice, on measurement basis. "The authorities do not indicate clearly whether the peasants were now required to pay in cash or in kind, the former probably because Ibrahim's order for grain payments was the result of the scarcity of currency and this difficulty must have disappeared under Shershah who reorganised currency and coined silver and copper in large quantities".[2] There were three kinds of lands—good, middle and inferior. *Ain* mentions the following classification. "Polaj land, annually cultivated for each crop in succession and never allowed to lie fallow ; Parauti, land left out of cultivation for a time that it may recover its strength ; Chachar land that has lain fallow for three or four years. Banjar land was uncultivated for five years or more."[3] Standard yield of each staple crop was calculated or estimated and average was struck, and one-third of the average was claimed as revenue from each unit of area. The effect was necessarily to overcharge the bad land and to undercharge the good. For wheat, the charge worked out at 24 per cent of the estimated produce of the good land and 48 per cent of the inferior land. Shershah's method formed as an ideal to start with. In early Akbar's region land revenue assessment was by measurement, and the demand made on peasants was based on a schedule of assessment rates which had been prepared under Shershah. Only one sehedule was used under Akbar. The demand was made in cash;

1 Mulla Qadir, *Tarikh-i-Badayuni* (*Muntakhab-ut-Tawarikh*) Badauni p. 484 ; Elliot Vol. IV p. 514.

2 *C. H. I.* Vol. IV, p.. 457

3 Jarrett. *Ain* II. Rate Sohedules, p. 69.
C. H. I. Vol. IV, p. 469.

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the produce was valued at prices fixed by the order of the emperor. These arrangements did not work for long. In the beginning the prices were uniform for the whole empire and were those which ruled in the vicinity of the court.[1] In the 15th year of Akbar's reign (1570 A. D.) new schedules of assessments were applicable to all lands whether assigned or reserved. The quanungos in each pargana worked out the new schedule under the supervision of Raja Todarmal. The prices at which the claim was to be valued had to be sanctioned for each pargana and for the empire. Parganas were grouped under assessment circles on the basis of agricultural homogeneity, and, for each circle a schedule of rates was framed allowing the amount of money to be demanded on the unit area of each crop, known as bigha. The size of the unit varied within wide limits, the bigha being a little less than 5/8th of an acre. The range of the rates was extensive, small millets were to be charged 11 dams, large millets 25 to 30, barley 40, wheat 60, sugar-cane, indigo, 120 and betel, 220 dams, the dam being approximately 1/40th of a rupee.[2] The above figures justify the curiosity of the revenue authorities to press for sugar-cane and indigo production instead of food grains, the chief aim being the extraction of as large a revenue as possible within the fixed schedule. A series of good seasons from 1585 to 1590 A. D. led to a fall of prices, and as such revenue could not be paid, and large remissions were granted by the assignees as well as by the Khalsa.

During the reign of Jehangir, the system differed on three points—(a) the standard of assessment was raised from 1/3rd to 1/2;- (b) individual peasant was relieved of the charges and possible exactions incidental to the detailed measurements and assignments of Akbar's times, and was left, almost entirely, in the hands of village headman (c) the pressure on the headman to pay highest possible amount had increased.[3]

Under Shahjehan, commerce and industry including agriculture were overburdened with numerous exactions. "The wealth of the country was sucked from all parts of the empire to great cities which were the centres of government".[4]

In the early years of Aurangzeb's reign, there was scarcity of peasants as confirmed by the accounts of Francois Bernier who stayed at the Mughal Court. He observed that agriculture was declining in consequence of the "execrable tyranny" which the peasants were experiencing at the hands of officials, farmers, assignees alike, and that many of them were either absconding to other regions, specially to domains of chiefs, whose conditions were more tolerable, or were absconding in order to work as servants in the towns or in the army.

1. *Ain II*. Jarrett. p. 68.
2. *Ibid*. Rate Schedules, pp. 69 to 95.
3. Dr. P. Saran, *Provincial Government of the Mughals*, pp. 297-8
4. *Shahjehannama*, Inayat Khan Per MSS. (S. B. U.)., pp. 199, 205-7. C.H.I. Vol. III, p. 520.

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This means that attempts of administration to increase the revenue were in fact leading to the direction of a progressive decline. "Aurangzeb's new Kharaj-i-Muazzaf[1] system placed the peasants under the merciless tyranny of the unscrupulous officials," says Dr. Pant Kharaj-i-Muazzaf was the system under which the peasant compounded with the authorities for the land in his occupation by annual cash payments quite independent of the income which he might draw from it. The krori or the collector of a crore of dams, who received 8 percent of his collections during Akbar's reign and 10 percent during the reign of Shahjehan, was allowed only 4 percent. The krori naturally made up the loss by extorting the difference and some times more from the poor farmers. Besides, many abwabs and unauthorised exactions were charged from the people. "Several of these abwabs", says Jadunath Sarkar,"were not directly paid by the peasant, several of these affected the smaller dealers and towns-people too. But as our population is predominantly agricultural, and most of the articles for sale came from the land, the weight of the abwabs pressed most heavily on the ryots".[2] In respect to these abwabs there was a clear conflict of policy between the Mughal emperors and their officers concerned. Clear farmans and royal proclamations were issued not to make these exactions, but in one form or the other, these orders were not carried out. Several instances are recorded in the reigns of Shahjehan and Aurangzeb in which harsh and exacting officers were duly punished. Sir Jadunath Sarkar referring to a characteristic anecdote in India Office Library Persian MSS. No. 370 illustrates Shahjehan's eagerness to do justice and even liberality to the peasantry.[3] This

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1. Pant, *The Commercial Policy of the Moguls*, p. 224.
2. Sarkar, *Mughal Administration*, p. 80.
   Note: Many royal farmans were passed not to realise unauthorised exactions. A few may be cited : 1. Akbar's farman : Tarikh-i-Badayuni (Per MSS. S. B. U.) p. 457; 2 Jehangir's farman (Per MSS. Tarikh-i Humayun, p. 317b)3 Aurangzeb's farmans (Tarikh-i-Farishta) p. 421 ; Alamgirnama, p. 438. *Mirat-i-Ahamadi*, pp. 404,409, 420, 1075 H.)
3. *Ibid*. p. 82.
   The anecdote is as follows:
   "One day Shahjehan was looking through the revenue returns of his empire, and discovered that in a certain village the revenue for the current year was entered as higher by a few thousands (dams) than that of past years. Immediately he ordered the high dewan Saadullah Khan to be brought to the presence for explaining the difference. After a local enquiry he found out that the river had receded a little and the new tract of land had arisen causing addition to the revenue. On the emperor asking whether the land was Khalsa or Aima and on being told that it was 'Aima' (rent free land), the emperor cried out in wrath: "The water over that tract of land has dried in response to the lamentations of the orphans, widows and the poor; it is a divine gift to them, and you have dared to appropriate it to the state. If a desire to spare God's creation had not restrained me, I should have ordered the execution of that second satan, the oppressive foujdar. It will be enough punishment to dismiss him as a warning to others to refrain from such wicked acts of injustice. Order the excess collection to be immediately refunded to the peasants entitled to it."
   (Sarkar : *Mughal Administration*. p. 82.)

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anecdote casts a reflection upon the belief of the public in Shahjehan's kindness to his subjects. The lower officials of Mughal India were invariably corrupt, while the highest were, on the whole, just with some exceptions. Sarkar makes a reference to Orissa Subedar, who appointed a number of krories one after another whosoever promised a large revenue, and dismissing the former ones, thus raising the revenue figure two-fold. The ryots unable to pay ran away and the villages turned into a wilderness.[1] The man was shortly afterwards removed from the office.

The system of assignment of land gradually decayed. The decay was due to three causes : 1. Decline of agriculture resulting in the loss of revenue. The assignee could not realise his promised or expected income. 2. The emperor had been forced to grant to the Marathas a share known as *chauth*, from the revenue of the Deccan provinces. 3. The emperor was no longer able to guarantee a peaceful enjoyment of an assignment so that the question of possession had passed from the forum of administration, and had to be decided by force of arms.

The details of irrigation facilities and other items connected therewith, will be discussed in the chapter on Industries, agriculture by itself being one of the most important industries.

3. Soils

The problem of soils is, however, closely connected with the problem of agricultural raw materials. "In no country of the world" says T. H. Holdich, "has geographical position. . . shaped the history and destinies of the people more surely than in India. A land of promise where nature offers her gifts with lavish hands and where the soils are peculiarly favourable to the reproduction of mankind, yet forming a sort of geographical *'cul de sac'* with a few notable gateways leading thereto from the north, and no exit except by sea, to the east, south or the west".[2]

Though Babar is lavish in his condemnation of the people of India, he eulogises the country as "full of charms".[3] Speaking of India's soil, Abulfazal, rightly says : "The soil is for the most part arable and of such productive power that the same land is sown each year, and in many places three harvests or more are taken in a single year and the vine bears fruit in the first year."[4] Whereas the soil of Ajmer is sandy and water obtainable at great depth, whence the

1. *Ibid.* p. 83. Even inspite of the farmans and royal displeasure there were more than 50 abwabs flourishing after the death of Shahjehan.
2. T. H. Holdich, *India*, p. 1
3. Zainuddin, *Waqa-i-Babri*. Per. MSS. (S. B. U.) p. 340; *Illminski* p. 377 as quoted by L. F. Rushbrook Williams in "*Empire Builder of the 16th century* p. 139. Erskine, *History of India*, Vol. I. p. 451. C. H. I. Vol. IV. p. 14.
4. Abulfazl, *Ain* II. Pt. p. 5 Eng. Tr. Jarrett & Sarkar II. p. 10.

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crops are dependent on rain",[1] the elevation of Malwa is "somewhat above that of other areas of the country and every part is cultivated; both harvests are excellent, specially wheat, poppy, sugar-cane, melons and grapes."[2] De Laet the famous Flemish geographer of Shahjehan's reign holds the same view.[3] Round about Delhi, much of the land is subject to inundation, and in some places there are three harvests."[4] The fertility of Lahore Province is "rarely equalled."[5] The "whole country between Lahore and Agra", adds De Laet, "is well-cultivated and is the most fertile part of India bearing all kinds of crops abundantly".[6] The same view is held by Rai Chatterman who makes a reference to the five doabs in the Punjab which have brought about the fertility of the province.[7]

Four groups of soils[8] which are recognized in Modern India must have existed in the period under review. These are the (i) Red Soils derived from the rocks of the Archaen system which characterise the region at present occupied by Madras, Mysore, S.E. of Bombay, extending to Hyderabad with extensions into Madhya Pradesh (C. P.) to Orissa and North of Bengal.(ii) The Black-cotton soils or regur soils, which over-lie the Deccan trap and cover the greater part of Bombay. Berar, western part of Madhya Pradesh and Hyderabad and Bundelkhand. The Madras regur soil though less typical is also important. (iii) The great alluvial plains, agriculturally the most important tract in India as well as the most extensive, mainly the Indo-Gangetic Plain embracing Sindh, the plains of U.P., most of Bihar, Bengal and half of Assam. (iv) The laterite soils which form a belt round the Peninsula and extend through East Bengal, Assam and Burma.

4. Economic Analysis of Agricultural Raw Materials

As no crop under the Mughal period escaped assessment, we can safely rely upon the assessment schedule adduced by Abulfazl in the Ain-i-Akbari, and this schedule is identical with modern statistics. The agricultural raw materials can be subject of study under four heads, *viz.* i, Grains, ii. Fibres, iii. Indigo, iv. Sugar-cane.

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1. *Ibid.* Per Text, p. 243. Eng. Tr. II. p. 273.
2. *Ain* II. Jarrett & Sarkar, pp. 206-7
3. De Laet, *Empire of the Great Mughal* (1928) p. 23.
4. Abulfazl, *Ain* II. Eng. Tr. Jarrett, p. 283.
5. *Ibid.*
6. De Laet, p. 54.
7. Raizada Chatterman, *Chahar Gulshan* : Per MSS (S. B. U.) p. 32. The five doabs mentioned were exactly the same as they are today. River Jhelum has been called Bahut. The Doabs named are as follows :
   (i) Doab Pamba Jullundar-Between Satlaj and Beas.
   (ii) Bari Doab—between Satlaj and Ravi.
   (iii) Rechna Doab—between Ravi and Chenab.
   (iv) Doaba Dabhat (Jechna) between Chenab and Debhat (Jhelum)
   (v) Doab Sindh Sagar—between Dabhat and Sind (Indus)
8. *Imperial Gazetteer of India* Vol. p. 602.
   Indian Year Book (1947). Times of India Press, Bombay, p. 306.
   Abridged Report on the Royal Commission on Agriculture in India, p. 9.
   Vera Anstey, *Economic Development of India*, p. 22.

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The chief food grains were wheat, rice, millets and pulses.

A. Wheat

In the long schedules of 19 years rates recording prices current in the various parts of Akbar's empire, as also, in the schedules of crop-wise land classification with revenue amount duly fixed, the learned author of the Ain very lucidly points out that wheat was commonly grown in the provinces of Agra, Allahabad, Oudh, Delhi, Lahore, Multan, Malwa, Ajmer, Kabul and Qandhar Sarkar.[1] Shahjehan Nama mentions that wheat and barley were grown on the boundary between Kashmir and Tibet.[2] Kabul and Qandhar wheat were a speciality. Kabul wheat was black in colour and small in quantity. Wheat was small in grain, there was little of it and little consumed"[3] Qandhar wheat was extremely white and was sent as a present to distant countries as a thing of value. Ain mentions : "Wheat and barley are called Safed Bari." It appears that so far as this Sarkar was concerned there was a departure from the general revenue policy of charging 1/3rd as government's share during Akbar's times. Abulfazl continues : "The jarib of sixty yards is used for measurements, but they reckon 30 yards of this according to Hijri jarib, each yard of 24½ digits, the gaz there in use; equal to 54 gaz of Qandhar. . . Cultivation is reckoned under seven heads. In the registers, the best kind of wheat is marked with an 'Ayn' (Arabic letter), and calculating the produce of each jarib at three kharwars, 24 man (maund) are taken as revenue thus :

No.	Kind of land	Distinguishing marks	Produce in Kharwars	Revenue in Mans
1.	Best	Ayn	3	24
2.	Best & Medium	Toy ain	2½	20
3.	Medium	Toy	2	16
4.	Medium & poor	dal, toy	1½	12
5.	Poor	dal	1	8
6.	Poor and poorest	dal, dal, dal	30 man	6
7.	Poorest	dal, dal	8 man	4

If the husbandman was unable of sustaining this assessment the produce was divided into three heaps, two of which were taken by the tenant, and the third was again subdivided into three shares, "two of which go to the revenue department and the third is charged to incidental expenses."[4]

1. Abulfazl, *Ain.*, Vol. Pt. pp. 234-67; Jarrett II. pp. 69-121.
2. Zahidkhan, *Shahjehan Nama*. Per MSS (S. B. U.) p. 130. The actual words are : "Aksar Gallat anja jau wa gandum ast".
3. Abulfazl, *Ain* Eng. Tr. Jarrett II. p. 253.
4. *Ain*, II Jarrett, pp. 400-401 (Grain was for the most part taken in Kharwar, the Kharwar being equivalent to 40 Qandhari man or 10 of Hindustan. (p. 399).

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Wheat was a spring crop as it is now a days. Waqa-i-Babri and Khulasat-ut-Tawarikh as other contemporary works contain references supporting the cultivation of wheat in various provinces.[1] In his Khulasat-ut-Tawarikh, Sujan Rai rightly maintains that "rains are the causes of improvement in agriculture, increase of revenue, cheapness of grains and populated regions." He continues : "Though some agriculture is carried on by irrigation from wells, in most of the regions it entirely depends upon rains only specially the agriculture on 'Lalmi' lands. Very often two crops are raised before rabi crop. Most of the revenue comes by grain cultivation. . . ."[2] At another place he adds : "The climate of the country is suitable for agriculture (wheat-farming), some land is flooded, some irrigated by wells and growing three crops in the province of Agra."[3] In Kabul, Sujan Rai maintains, "Wheat farming is done by canals."[4] During the reign of Akbar when the farmers were hard-pressed, on the personal report of Qasim Khan Subedar, one eighth of land revenue fixed was ordered to be excused for eight years.[5] Farishta also alluded that the rabi crop (wheat cultivation) was being carried on by well-irrigation.[6] Aurangzeb by a definite farman advocatd the improvement of cultivation in Gujrat.[7]

Tavernier maintains that the Mughal territories were well manured and the fields well irrigated. In his travels through the country he met a tribe called Manori which had four similar groups each consisting of one lakh of men. The first of these was engaged in the transportation of corn, mostly wheat, the second rice and the third pulse and the fourth salt. He came across good fields of wheat on his journey from Surat to Agra via Sironj. From Surat to Baroda wheat was found in plenty.[8] Sir Thomas Roe who visited India during the reign of Jehangir once met near Berampur 10,000 bullocks loaded with wheat mostly and on several occasions. The province of Thata also abounded in wheat during the reign of Shahjehan and Aurangzeb. Malwa was rich in Agricultural crops mostly corn.[9] The statistics preserved by Abulfazl "render it possible to obtain a rough idea of

1. *Waqa-i-Babri.* (S. B. U) Per. MSS. p. 153; *Khulasat,* Per. MSS. (S. B. U) pp. 7, 32 (Malwa), 53 (Kabul).

2. *Khulasat.* Per MSS. p. 6 The actual words are :
'. . . . . *Kiswat-i-barish mujib-i-afzuni zaraat wa afzaish-i-hasilat wa arzani-i-ghallat wa abadi alginat ast. Agarche dar baz aqtar zaraat bar chah ha mishawad wa darine atraf aarazi sailaba ham ast. . . amma aksar zamin lalmi ki ibarat az barani bashad. Filwaqaishuda azin jahat aksar madar bar baran ast wa beshtar zin zamin-i-sualeh ki dar besh o be wa dar sale do martba. Baz chah ha ziyada baran zaro mi shawad. . . .*"

3. *Ibid.*

4. *Ibid* p. 53 b. (Zarait-i-Joebar).

5. *Ibid* p. 239 b. In the vicinity of Peshawar wheat and Barley were grown (53b.)

6. Farishata, *Tarikh,* Per. Text p. 419.

7. Muhammad Qazimi, *Alamgirnama.* Per MSS. p. 438 Abwabs were excused so that wheat may come from Shahjehanabad, Agra, and Brampur to be sold cheaply in Gujrat and high prices checked in times of scarcity.

8. Tavernier, *Collection of Travels,* Chap. III. p. 28.

9. John Pinkerton, *Collection of Best Travels,* Vol. VIII. Journal of Sir Thomas Roe, p. 5.

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the relative value of the crops grown in those parts of Northern India where the revenue was assessed on Akbar's regulation system."[1] The assessment of a bigha of wheat under Akbar was 60 dams. This meant the average value of wheat was 180 dams, the revenue being 1/3rd.[2] In Rajasthan wheat was very cheap owing to the lack of transportation facilities. The Kotah State records show that its price was only Re. 1 per 2 saie (one saie was equal to 20 seers).[3] Wheat has the greatest comparative value amongst the food grains as at present. An idea of the comparative values can be had from estimates of Moreland prepared from the figures of Akbar's time which held good in the latter times upto Aurangzeb and long afterwards. The table is given below :[4]

Crop	Comparative value	Crop	Comparative value
Wheat	100	Linseed	51
Barley	67	Rapeseed	53
Gram (common)	60	Poppy	210
Jowar	59	Sugar-cane	213
Bajra	42	Cotton	150
Mandwa	44	Indigo	254
Sawan	22		

In the comparative value of food grains there is practically very little change.

The distribution of wheat in India during the Mughal times shows that the condition required for its growth in the modern times were adhered to. As the modern geographers like Dudley Stamp, Chisolm *etc.* have held, it requires 20 to 25 inches of rainfall, a temperature of 40 degrees at the time of sprouting which must slowly and gradually increase to 60 degrees at the time of ripening. Too much rain and heat are inimical to its growth and that is why we do not hear of wheat in the provinces of abundant rainfall like Bengal.[5]

B. Rice

Rice as opposed to wheat is a tropical commodity requiring for its successful cultivation plenty of water and a high temperature of nearly 80 degrees Fahrenheit. Water-logged areas are most suited for its growth. It is on these grounds that principal cultivation of Bengal is rice "of which there are numerous kinds."[6]

1. Moreland, *India at the Death of Akbar*; p. 103.
2. Dr. P. Saran, *Provincial Government of the Mughals*, VIII, p. 297.
Note : Smith observes that "the revenue system of the empire described by Abulfazl was not uniform but varied and was adopted to local conditions." (Smith, *Akbar the Mughal Emperor*, p. 377).
3. Kota old Records, File No. 2 page 124 (Phagun Sudi Puranmasi V. S. 1707).
4. Moreand, *India at the Death of Akbar*, p. 103.
5. *Ain* Jarrett II. p. 134. *Khulasat*, Per MSS. (S. B. U.) p. 38.
6. *Ibid.* 134, (*Ain* II).

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Abulfazl seems to have been enamoured of the innumerable varieties of rice grown in Bengal and he says with emphasis : "If a single grain of each kind were collected, they would fill a large vase". Again he continues: "The harvests are always abundant, measurement is not always insisted upon and the revenue demands are determined by the estimate of the crop. His Majesty in his goodness has confirmed the custom. Their staple food is fish and rice; wheat and barley, and the like are not being esteemed wholesome."[1]

Besides Bengal rice was grown in Orissa, Bihar, Agra, Allahabad, Oudh, Delhi, Lahore, Multan, Ajmer, Malwa, Khandesh and Kashmir.[2] The chief varieties mentioned by Abulfazl are Kur, Shali, (mushkin and ordinary). The Shali muskin was of the superior quality and grown in autumn while the other varieties in Spring. The following table explains the production of rice on the Polaj land in both the harvests—Spring and Autumn :[3]

Quality	Produce of Bigha Best sort of Polaj in man(md.)	Produce middling sort in md.	Produce worst sort	Produce 3bigha in md.	1/3rd middle	1/3rd medium produce land Revenue
	Md. Sr.	Md. Sr.	Md. Sr.	Md. Sr.	Md. Sr.	Md. Sr.
1. Kur rice Spring Shali	24—0	18—0	14—10	56—10	18—30	6—10
2 Autumn	,,	,,	,,	,,	,,	,,
3 Common rice	17—0	12—20	9—15	38—35	12—38½	4—13

The superior quality *i.e.*, the shali rice ripens quickly, is pleasant to taste, and smells fragrantly. "It is harvested in Shrawani *i. e.*, July, August. Munji rice is highly priced."[4] It was chiefly grown in Agra province. The following table prepared from the 19 year rates adduced

1. *Ain II*, Jarrett. Tr. p. 134.
2. *Ibid.*, De Laet, p. 71, Hadiq-ul-Aqalim Murtiza Hussain Bilagrami. p. 151.
3. *Ain II*, Jarrett. pp. 69-122. 19 years' rates.
4. *Ibid.* p. 70.

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in the Ain (Part II) gives fuller details about the price of rice in the various provinces :[1]

Provinces	Quality of rice	Maund Max. Price Dams.	Maund Min. Price Dams.
Agra	Kur	70	32
	Munji	65	48
Allahabad	Kur	60	22
	Shali (dark)	100	56
Oudh	Common	70	22
	Munji-Shali	65	48
Delhi	Kur	60	24
	Shali	90	40
Lahore	Kur	60	40
	Shali	80	40
Multan	Kur	40	26
	Shali	72	40
	Common	60	28
Malwah	Kur	60	54
	Shali	75	80
Ajmer	Kur	61	33
	Shali	55	44

In Bihar, next to Bengal "the cultivation of rice for its quantity and quality is rarely to be equalled."[2] In Khandesh fine quality of rice was produced.[3] In Kashmir also Shali rice was plentiful though the finest quality was not available.[4] Babar though speaking of the cultivation of rice as a whole is silent in particulars of detail.[5] Sujan Rai, however, eulogises Sukhdas Rice for its flavour and high quality. He says : "All the grains of this country are good but the sukhdas rice excels all others in taste and is a good diet."[6] The same view is held by Bernier when he says: "In his journey from Surat to Agra, Navapura grew good rice irrigated from a river near by. The grain of this rice is half of the other quality. It smells musk and is white and all the grandees of India eat this and send it to Persia for presentation."[7]

Sujan Rai is of opinion that the rice of Lahore Province is better even than that of Bengal.[8] He holds the same opinion for rice grown

1. *Ibid.* pp. 69-122.
2. *Ibid.* p. 164.
3. *Ibid.* p. 233.
4. *Ibid.* p. 352.
5. *Waqa-i-Babri* : Per MSS. (S. B. U.) p. 153 : *Chahargulshan*, R. Chatterman : (Per MSS.) p. 38.
6. Sujan Rai, *Khulasat* : Per MSS. (S. B.U.) p. 5. The actual words are: "*.... Jamin ghallat ein mulk laziz o khushgawar... amma, biranj-i- sukhdas sar az jamin ijnis khubi o latafat-i-aan beroon az hadde qiyas ast.... marghoob badshahan wa sair-ul-nas dar mulaimat wa halawat be nazir... ba ; khush rui wa khush mazgi dilpizir dost-i-mughan ba jahat daroghad. Bahtar tuam khushtar azan nishan namin dahand....*"
7. *Bernier's Travles*, Vol. II. p. 312.
8. Sujan Rai, *Khulasat* (Per MSS) S. B. U. p. 49a.

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in Peshawar.[1] But this is rather doubtful. In Gujrat enough rice was not produced. To control the rise of price of rice Aurangzeb by a definite farman in 1075 H. prohibited the export of rice from the province.[2] Thatta was also important for rice production. "While Dara approached the fortress of Thatta Bakar, (Bhakkar ?). . . rice and meat were being sold for upward a crown per pound and other necessaries were dear at the same proportion."[3] But these were exceptional conditions under a rule of anarchy which followed the war of succession preceding the reign of Aurangzeb. Bernier describes Kashmir as a fertile valley abounding in rice, apples, pears appricots, melons, and grapes.[4] The growth of rice in South India was evidenced by Tavernier. On his way from Surat to Broach, he met rice fields in his way. He met women rice sellers in Ootockmond (Khichri-sellers).[5] In his Journal Sir Thomas Roe mentions that while on his way from Surat towards Agra, he met 10,000 bullocks loaded with corn which must have included rice also. He met this caravan 15 miles from Brampore.[6]

Alluding to overland trade of rice, Tavernier says : On oxen back in Persia they load 300 to 350 lbs. of cargo. . . Ten to twelve thousand oxen at a time laden with rice, corn and salt (move about) in such places where they exchange such commodities carrying corn where rice grows, rice where corn grows and salt where none at all.[7] Again in his letter to Marveilles in 1664, he makes a reference to trade in Bengal rice. He writes: "Pre-eminence ascribed to Egypt is due to Bengal (rice). Bengal produces rice in such abundance that it not only supplies rice to neighbouring but to remote states. It is carried up the Ganges as far as Patna, exported by sea to Masullipattam and to many other ports of Coromondal. It is also sent to foreign kingdoms principally to the Islands of Ceylon and the Maldives."[8]

C. Millets

Millets consist of cheaper food grains like Jowar and Bajra etc. These are grown on poorer soils and regions of deficient rainfall. Jowar was cultivated in Malwa, Gujrat, Ajmer, Delhi, Lahore, Agra, Allahabad and Multan as apparent from the table rates of 19 years adduced in the Ain. These formed important items of Indian Kharif crop as at present. Mirat-i-Ahmadi gives interesting details of Kharif

1. *Ibid.* p. 53b.

For these statements, his opinion is not sound as on p. 7 of his work he eulogises in high terms the Sukhdas rice of Bengal. Moreover, Sujan Rai, not being a traveller had only based his observations either on hear-say or on his zeal for his provincialism. Chatterman in his Chhargulshan praises Bengal rice. (p. 38). Bernier and Tavernier who are eye witnesses and knew and saw Lahore and Peshawar rice, have praised Bengal rice for their quality and quantity. (Bernier Travels I. p. 438; Tavernier Travels. Letter to Chaplain pp. 140). Moreover Peshawar and Lahore conditions do not suit rice production like Bengal.

2. *Mirat-i-Ahmadi*, Hussan Muhammad : Per MSS. (B. B. U.) Farman para 23, p. 410.
3. *Bernier Travels* I, p. 93.
4. *Ibid* p. 426.
5. *Tavernier*, Chap. XVI. p. 97.
6. Pinkerton, *Voyages*, VIII, Journal of Sir Thomas Roe, p. 5.
7. *Collection of Travels*, Tavernier III, p. 27.
8. *Bernier's Travels*, I. p. 438.

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crops. "In Surat it amounted to 5.5 lakhs of rupees, in Khambayat 1·5 lakhs of rupees, in Parganat Salad one lakh, Dhonqa pargana, Namaksari Rs. 1000 In Broach, 15 lakhs, Bermakanam Rs.45000.[1]" These were the details of the times of Shahjehan. If we take Agra prices of Jowar as given in the Ain-i-Akbari, we can form a rough estimate of the total yield of the Kharif crop, mostly Jowar and Bajra. The produce of Polaj land (cultivated every year) was 13 maunds on the best Polaj, 10½ maunds on the middle sort and 7½ maunds on the worst sort of Polaj. Thus the average was 10 maunds and 13½ seers per bigha.[2] The 19 year rates as given in the Ain show that the price of Jowar was nearly 38.6 dams per maund *i.e.* 15 annas per maund. The highest price was 60 dams per maund in the ninth year and 20 dams and 34½ jitals per maund in the 20th year of Akbar's reign. In Kotah State (Rajasthan) Jowar was sold at Rs. 7 per mani (one mani was equal to 12 mds. of 40 seers each). It was in the stock of Bai Raj Kunwar (daughter of the ruler).[3] In the absence of any other produce and price schedule, we might safely conclude that these rates prevailed upto the reign of Shahjehan. Then the production figures of Mirat-i-Ahmadi in Gujrat would denote that nearly 12 to 15 lakhs of maunds of millets were produced in over a lakh of bighas of land. Bernier found millets being grown from Surat to Broach.[4] The drier parts of Rajputana, West Punjab, and the West Doab, were also famous for millets as at the present times. Proceeding from Agra to Patna, Tavernier crossed a field of millets and saw a rhinoceros feeding upon millet canes which a little boy of 10 to 12 years gave him to eat.[5] This shows that millets were grown even in the rainier parts of the Doab. The Ain also mentions Jowar being grown in the povinces of Malwa, Ajmer and Delhi.[6] Mirat-i-Ahmadi makes a special mention of Jowar being grown in Lahore and Khulasat in Allahabad.[7] In Gujrat Jowar and Bajra formed the staple food-crops.[8] In Kotah (Rajasthan) gram (चना) was sold at the rate of Rs. 8 per mani (one mani was equal to 12 mds. of 40 seers each) in village Mandania, 5 miles east of the city on the bank of the river Chandloi.[9]

D. Pulses

Pulses were mostly grown in Bihar, the Doab, Allahabad, Oudh, Delhi, Lahore, Multan, and Malwa.[10] Tavernier came across a tribe called Manori tribe, a section of which was engaged in the transport of pulses in the Deccan. The chief pulses grown were mung, moth, mash etc., in the autumn harvest. According to the Ain, their prices in the first years of cultivation were 48 dams per maund in all the above named provinces. In Agra, the price ranged from 48 to 13 dams per maund of moth; 22-48 for mash and 26 to 48 for mung.[11] Nearly the

1. Hussain Muhammad Khan, *Mirat.* (MSS. Per S. B. U.) p. 49 A.
2. *Ain II*, Jarrett, p. 70; rate figures pp. 69-121. *Ibid.*
3. *Kotah old Recoras*, File No. 2 p. 140 V. S. 1707.
4. *Tavernier Travels* II, p. 36; *Bernier* p. 283.
5. *Khulasat*, Sujan Rai, p. 26; *Tavernier Travels* II. p. 51.
6. *Ain* II, Jarrett. Malwa p. 207; Gujrat 246; Ajmer 173; Delhi 283.
7. *Khulasat*, p. 26.
8. *Ain* II, p. 246.
9. *Kotah old Records* File No. 2 p. 140. V. S. 1707.
10. *Ibid.* pp. 76-93.
11. *Ibid.* p. 76.

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same prices were obtained in the above named provinces. For non-meat eating population, pulses have been regarded as a great source of providing vitaminous substances in the construction of human bodies and as such their importance to vegetarian population in India has been great.

ii. Fibre Products

The chief fibre products consist of cotton, wool, silk, hemp and jute. The last named has been the product of the British times and as such can be left out of consideration. Hemp was not an important commodity. However it cannot be doubted that this must have formed the raw material for some of the local industries. For an agricultural country, rope-making is an important industry and so this must have not been neglected even in the Mughal times. Important references of authorities are available for cotton wool and silk.

A. Cotton

Cotton requires volcanic soils and as such it has been the product of black-soil regions of Malwa plateaux and the Peninsular India. It is a sub-tropical plant, the perfect culture of which requires (a) safety from frost, (b) moderate and regular heat, (c) bright sunshine, (d) a good, but not excessive rainfall, (e) a soil in which lime is present and (f) salinity of soil and air.[1] A combination of such conditions is rarely to be found so that the best cotton is rare. The long stapled cotton or the sea-island cotton which is a speciality of North America was not known in the period under review, this being introduced under the British Rule in the last century. "Raw cotton was exported only to the Persian Gulf and Arabia. It did not pay to transport it to greater distances or to Europe. Khandesh and Berar were then, as now, the chief seats of fibre and cotton. It found its easy way to Ahmedabad and Surat for embarkation. The extensive cotton spinning and weaving carried on in that age in Bengal and Masullipattam seem to have depended upon the local production of the raw material, and not on imports from Berar by way of Western Ghats.[2]

The nineteen year rates as given in the Ain disclose that cotton was an autumn harvest in India chiefly grown in the Provinces of Agra, Allahabad, Oudh, Delhi, Lahore, Multan & Malwa.[3] The produce of polaj land (cultivated every year) on the best bigha of land was 10 maunds, on the middle land 7½ maunds, on the worst land was 5 maunds during the times of Akbar, and as such, the land revenue being one third on the average produce of three years was 2½ maunds per bigha.[4] The price of raw cotton as quoted in September 1669 in the record of Fort William, Bengal, have been combined with wool, and they were 40 to 60 Mahmudi per candy (or 20 maunds) of Deccan or 500 English pounds. Each Mahmudi was then equal to 11 d. The price of cotton yarn was 8 to 10 Mahmudi per maund and Baffetas of

1. Chisolm, *Hand-book of Commercial Geography.*
2. J. N. Sarkar, *Studies in Aurangzeb's Reign* Chap. XVII. p. 276.
3. *Ain*, II, Jarrett pp. 76-93.
4. *Ain*, II. p. 70.

Cotton Rates

Provinces	YEARS																		Average
	6-7 D	8 D	9 D	10 D	11 D	12 D	13 D	14 D	15 D	16 D	17 D	18 D	19 D	20 D	21 D	22 D	23 D	24 D	D
Agra	120	120	130	110	110	110	110	70 92	90	85 90	70 90	62 90	70 90	59 94	76 102½	60 90	40 58	44 60	87·5
Allahabad	120	120	180	110	120	120	120	96	90 120	90 120	70 120	70 120	70 120	70 128	70 128¼	80 102½	70 102½	50 70	108·3
Oudh	120	120	130	110	110 130	110 120	110 120	88	90	90	70 90	70 74	72 130	72 130	65 79	64 70	50 60	46 90	97·7
Delhi	120	120	130	110	110	110	110	90	90	75 90	70 90	60 90	70 90	76 112	88 150	56 120	44 68	45 70	88·8
Lahore	120	120	130	110	110	110	110	99	120	96 104	70	64	80	90 95½	80 160	80 160	44 70	55 68	92·7
Multan	..	..	..	..	..	..	..	..	120	104	70	64	80	70 96	40 95½	70 76	44 90	56 90	80·2
Malwa	50	50	50	50	50	50	50	50	50	M.D. 2·50	Do	Do	Do	Do	M.D. 2½ 62½	Do	Do	Do	50·2

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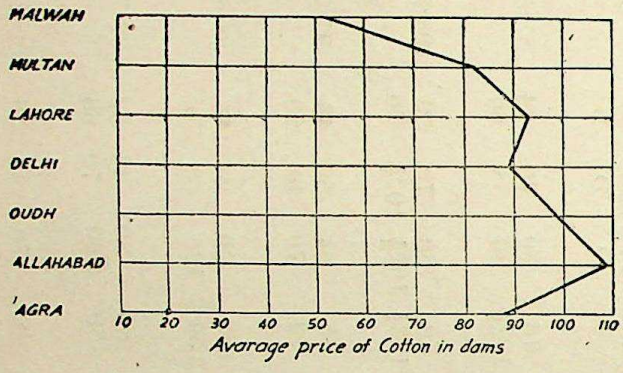

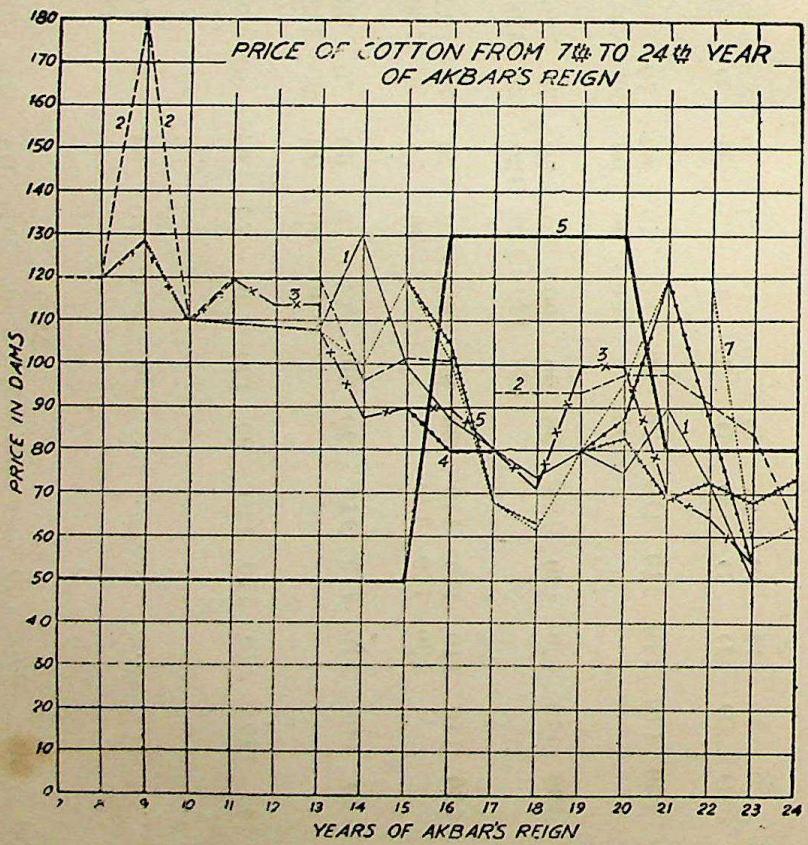

Explanation — 1. Agra. 2. Allahabad. 3. Oudh. 4. Delhi. 5. Malwa 6. Multan. 7. Lahore,

N. B. The graph shows that the prices tended in the provinces to come to the same level.

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Broach at 10 to 50 Mahmudis per piece.[1] The Ain gives 19 years rates prevailing in the various provinces under Akbar : these are given on page 93:[2]

The above table shows that the price of cotton in Malwa was the lowest while in Oudh the highest. It was due to the larger yield in the former province on account of the climatic and the soil considerations. The price of cotton was nearly 50 percent higher than that of wheat. India's demand for cotton goods being great due to the tropical climate, there were great cotton manufacturing centres which will be discussed in the chapter on Industries. However, these bear ample proof of cotton production in the country. Indian looms monopolised the home market for cloth and whatever India could spare was sent to Burma, Malacca, Arabia, and the east coast of Africa".,[3] The prices of finer qualities of yarn in Jehangir's times were 12 to 14d per pound, 100 bales being exported by Surat on 29th November 1641.[4] Under Shahjehan's rule, raw cotton was demanded for candle wicks and fustians (cloths which have flaxen warps with cotton wefts). India had no cotton pressing machines, so that this demand for raw cotton was supplied by the Levant which had pressing machines. The demand for Indian yarn however was continually going up as no country could then compete with India in charkha (wheel) spinning.[5] The chief centres were Navapoura, 104 miles from Surat, a great town of weavers,[6] Lahore (where finer cloths were being manufactured),[7] Sialkot manufacturing tray-covers, Dacca famous for muslins, and the provinces of Gujrat and Khandesh.[8] The other important cities engaged in cotton manufactures were Cambay, Broach, Sironj, Calicut, Lahore, Agra and Ahmedabad.[9]

Moreland rightly maintains that "cotton at least was more widely grown than is now the case, though the aggregate of production was probably less and it is reasonable to infer that most parts of the country were nearly self-sufficing in the matter of clothes."[10] The specialisation was not practised though not entirely unknown. We find Bengal supplying sugar to many parts of India while the production of indigo was to a large extent concentrated in Biana, Agra and Sarkhej (in Gujrat).[11]

1. *The Indian Record Series* : Old Fort William, Bengal. Vol. I. p. 28. (National Archives, New Delhi No. 954, I. W. 69).
2. *Ain*, II, Jarrett. pp. 76-93 (Table has been compiled from the rates).
3. Pant, *The Commercial Policy of the Mughals*, p. 93.
4. Calendar of the Court Minutes of the E. I. Company, Ethel Bruce Sainesbury (1907 Oxford Press). National Archives, New Delhi, Vol. II. p. 179
5. Pant, *The Commercial Policy of the Mughals*, p. 210.
6. *Collection of Travels* : Tavernier, Chap. III. p. 29.
7. *Khulasat*, Sujan Rai, Per MSS. (S. B. U.) p. 39.
8. *Ibid* p. 44 Tarikh-i-Badayuni (Per MSS) p. 1027. For Dacca he says "....*parcha malmal wa siri safa waghira dar anja ulqism baftand ki dar haft aqlim bar-i-mughanbarnad*..." for Gujrat and Khandesh see Ain II. Jarrett. p. 232 and 247.
9. *'Ibid*; Khandesh famous for sirisaf & Bhairaun came from Dharamgaon. Gujrat famous for chira, fotah (coloured turbans).
10. Moreland, *India at the Death of Akbar*, p. 105.
11. Moreland, *India at the Death of Akbar*, p. 105.

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B. Wool

Wool was obtained as at present from many different animals like sheep, camels, goats and angora. The commercial supply was mainly derived from the fleece of domestic sheep which prefers dry climate free from extremes of temperature. India under the Mughals was not important as a wool producing country. Although the woollen industry in India is very ancient, flourishing on the cottage scale, its status as a factory industry is only a few decades old. Under Akbar's times, Kabul was famous as a wool producing province and so were Kashmir and western parts of Rajputana. Shawls of Kashmir were famous. Abulfazl speaking of shawls and woollen stuffs speaks of the keen interest displayed by Akbar in the industry. The 'tus' animal supplied 'tus' (a type of fine wool) of red, black and white types. Its shawls were famous for their lightness, warmth and softness. Bernier also praises these shawls which cost Rs. 50/- to Rs. 150/- each.[1] Shawls were also manufactured in Patna, Agra, Lahore, but these could not compete with the Kashmir shawls due to the latter's quality of dyeing water.[2] Ain referring to the increase in the size of the industry refers to change in the habits of Akbar who began using double the dimensions of the shawls prepared from sheep wool also. In Lahore there were 100 workshops.[3] Khulasat too speaking of the times of Aurangzeb makes a reference to shawl manufacture in Kashmir.[4]

Rough woollens were manufactured at Fatehpur, Agra and in Bengal, and unlike silk which was limited to the rich, woollen goods were used to some extent by the poor also. Moreland feels that as Akbar had encouraged Kashmir woollen shawls, in the North of the country, woollen goods were in use.[5] The cheapest blanket according to Abulfazl cost only 10 dams or $\frac{1}{4}$th of a rupee and as such it must have been in common use. During Akbar's times wheat was being sold at 12 dams a maund. This meant that the price of the cheapest blanket was 33 seers and 5 chhataks which today means nearly Rs. 14/- and as such blankets were not so cheap comparatively as they are today, and this appears to be the reason why blankets were not supplied to the best horses in Akbar's stables.[6] In the lists of imports into Oudh and Kamaun as mentioned by Abulfazl, in the accounts of 12 subhas,[7] wool from Tibet or from any other place has not been mentioned though woollen goods reached into Oudh from the North. This means that the supply of raw wool was limited, and as such woollen goods were rather costly. Higher strata of society used foreign woollen shawls also.[8] No data of actual supplies of wool are available. Of course an idea of prices is available.[9] George Forester has

1. *Ain*, Jarrett. II. p. 97; *Bernier's Travels*, Vol. I. pp. 402-3.
2. *Ibid.* p. 402.
3. *Ain* II. Jarrett. p. 98.
4. *Khulasat*, Sujan Rai Khatri (S. B. U.) (Per MSS). pp. 49b & 50a.
5. Moreland, *India at the Death of Akbar* p. 176.
6. Moreland maintains this. (*India at the Death* of Akbar, pp. 176-7).
7. *Ain* II, Jarrett. pp. 183 and 285.
8. Moreland takes this view (from *Akbar to Aurangzeb* p. 59).
9. The Indian Record Series. Old Fort William Bengal by G. R. Wilson. (National Archives, New Delhi. No. 954. I. W. 69) Vol. V. (No. 437) p. 63. Edward Connock and Thomas Barber wrote to factors at Surat (19.1.1617)" Wool was worth 3 Mahmudis per maund and baffetas at 2 to 4 M. per piece.

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given a good description of the industry at a much later date (1783) and the same would hold true for the period under review as the conditions were identical. He continues : "The wool of shawls is not produced in the country, but brought from the districts of Tibet lying at a distance of a month's journey to the North-East. It is originally of a dark colour and is bleached in Kashmir by the help of a preparation of rice flour."[1] Just as at the present day, wool must have been imported into the country from Kabul, Qandhar and Persia. Mr. Gadgil appears to be speaking of our period when he says : "The carpet industry was the only urban industry which had a considerable foreign market... This was entirely a cheap carpet industry, the two centres being Mirzapur and Amritsar."[2]

It is really a pity that we possess no record of the Rajputana wool, the quality and quantity available in the period under review though the industry has been known to exist on domestic scale in Jaisalmer, Marwar and Bikaner as per local traditions.[3]

C. Silk

Silk is derived from the silk-worms, a kind of moth in the caterpillar stage. When about to enter the chrysalis stage, the worm surrounds itself with a protecting cocoon consisting of a very bright strong fibre coiled round itself an indefinite number of times. It is so fine that in the spinning of silk for the market, the fibres of 5 to 20 or more cocoons according to the degree of fineness required, are reeled off to form a single thread. The food of the cultivated silkworm is the leaf of the mulberry plant. Hence silk may be produced wherever the summers are warm enough to grow that plant. There are also wild silk-worms which feed on leaves of other trees *e.g.*, oak, whose silk is tussur of pale fawn colour. Now a days as also under the period under review, for good results of silk production, the areas must be free from cold so as to enable the mulberry plant to grow and exist. "Sericulture has been practised in India for the last 2000 years and a lot of silk used to be exported in days gone by."[4]

In Akbar's time, Bengal including Patna, was an important centre of the industry besides Ahmedabad and Kashmir which used to export large quantities of silk to the two other centres.[5] Kasim Bazar "every year sent 22,000 bales of silk, every bale weighing 100 lbs". Continuing Tavernier says: "The Hollanders carry away six or seven thousand bales and would carry away more if the merchants, Tartary and the Mughal Empire did not oppose them; for they buy us as much as Hollanders, the rest the natives keep to make their stuffs". Silk was brought into Surat and Ahmedabad for the manufacture of carpets and satins worsted with silk and gold threads. Patoles, a sort of silk stuff, very thin and painted with all sorts of flowers were

1. George Forester, *Journey from Bengal to England*. II. p. 18.
2. D. R. Gadgil, *The Industrial Evolution of India* (1944) p. 34.
3. A tract issued by the Deptt. of Commerce and Industry, Rajasthan Government (1952).
4. *Indian Yearbook* 1947, p. 754 (Times of India Press, Bombay).
5. Pant, *Commercial Policy of the Moghuls*, p. 95.

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also manufactured, each piece costing Rs. 8 to Rs. 40. At Veetapur some 12 leagues from Agra the industry was also important. The manufactured silk pieces were exported by the Dutch to Phillipines, Borneo, Java, Sumatra and other neighbouring islands. The Kasimbazar silk was yellowish like the silk of Persia and Sicily but the manufacturers whitened it with a dye made of the ashes of a tree called "Adam's Fig Tree." It was just like Palestine silk. The Hollanders transported silk goods from Bengal through Hoogly.[1] According to Barbosa silk of Gujrat was sent to East Africa and to Pegu.[2] The Diary of Streynsham Master dated 8th Nov., 1676 discloses a description of silk manufacture. The soils of Bengal favoured the cultivation of mulberry plants which were gathered to feed the worms. "The soile of Bengala is very fertile, being a kind of loose fatt earth and some places a fatt sand. There is not one mountaine or Hill to be seen about Hugly or Cassambazar, the Country being all plaine and levell, and though anything will grow by reason of the fertileness of the soile, yett firewood is scarce, and timber bad and very deare."[3]

Speaking of the dexterity in reeling silk, Orme Robert says : "The women wind off the raw silk from the pod of the worm. A single pod of the raw silk is divided into 20 different degrees of fineness, and so exquisite is the reeling of these women, that whilst the thread is running through their fingers so swiftly that their eyes can be of no assistance, they will break it off exactly as the assortments change, at once from the first to the twentieth, from the nineteenth to the second." Again continuing he writes : ". . . that the tools which they use are as simple and plain as they can be imagined to be. The rigid clumsy fingers of an European would scarcely be able to make a piece of canvas, with the instruments which are all that the Indian employs in making a piece of cambri."[4]

Akbar encouraged in every possible way the promotion of silk industry. Ain makes a reference to a kind of shawl called 'mayan' chiefly manufactured in Lahore, consisting of wool and silk mixed. "These are stuffs with gold and silk qasida and qalgai. These are stuffs with gold and silk threads and manufactured in Kashmir."[5] Raw and manufactured silk was also found in Allahabad, Shahjehanbad, Bengal, Gujrat, Kashmir and Sialkot.[6] Benares was likewise famous.[7] Petermundy is of opinion that the "sale of skein silk

1. *Travels of Tavernier* : Chap. X. p. 126.
2. Barbosa as quoted by Moreland, *India at the Death of Akbar*, p. 172.
3. J. N. Das Gupta, *India in the 17th Century*, pp. 220-1.
4. Orme Robert, *Historical Fragments of the Moghul Empire*, p. 412.
5. *Ain* II, Jarrett, pp. 97-101.
6. *Chhar-Gulshan*, R. Chatterman. Per. MSS. (S. B. U.) pp. 27, 39.
   Khulasat, Sujan Rai. Per MSS. p. 22 (Shahjehanabad); 30 (Bengal); 34 Gujrat Velvets;
   Muntakhab-ut-Tawarikh - Per MSS. (S. B. U.) p. 1067 (Sialkot); Chhar mentions Allahabad also.
7. Niccolo Manucci, *Storia de Mogor*. Vol. II. quoted by Pant.

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seems to have been a monopoly of the Governor of Bengal and it had to be bought through his agent, the town magistrate (Kotwal) in Patna."[1]

Dr. Nolan has given interesting figures about silk worms and their food. In one pound there are generally 250 to 400 cocoons. Eggs are very light, in one ounce there would be 37,440 eggs of the largest size. If all eggs produced worms, then they would produce 273 lbs. of cocoons. For their consumption, one oz. of eggs would require :

1st Stage	.....	6 leaves
2nd ,,	.....	18 ,,
3rd ,,	.....	60 ,,
4th ,,	.....	180 ,,
5th ,,	.....	1098 ,,
Total		1362 leaves

from hatching to cocoon stage.

Further, Dr. Nolan points out that a cocoon yields 1760 feet of spun silk, and one oz. of such silk contains 264,000 feet. On the average each silk worm draws a thread, half a mile in length. The full grown worm is 3 inches long. Each moth, after four to six days, lays 510 eggs. It has been calculated that 180 female moths lay 91,800 eggs weighing 2½ oz.[2]

As pointed out by Moreland, silk-weaving was a minor industry in the times of Akbar, and it is probable that it must have been minor still in the times of Babar and Humayun. A "substantial proportion of raw silk consumed in India was used for the production of the mixed goods."[3] The bulk of the silk handled was produced by domesticated worms fed on cultivated mulberry.

(III). Indigo

It is also called al (Morinda-tinotoria), the dye yielding shrub which was important in Central India. It was used mostly in the Mediterranean area and also in Western Europe. It is a leguminous plant that brings down nitrogen from the heavens into Indian soil and it has "peculiar value as an organic manure in a country where animal manure is not available. Indian dyes are obtained from the indigofera, a genus of Leguminosae which comprises 300 species, distributed throughout the tropical and warm temperate regions of the globe, India having about forty."[4]

William Finch (1608-11) has fully described the manufacture of indigo. It usually grows upto a yard and its stalk in the third year is no more than a man's thumb. The herb is sown once every three

1. *Travels of Petermundy* by Hakluyt Society 1608-67. Vol. II, p. 371.
2. Dr. E. H. Nolan, *Hist. of Br. Empire* Div. III p. 404.
3. Moreland, *India at the Death of Akbar*, pp. 171-2.
4. *Indian Year Book* 1947. (Times, Bombay) pp. 754-5.

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years. In the months of August and September just after the rains, the leaves are cut and gathered, cast in into long cisterns, pressed down with stones, and left therein with water. The water is then passed out into another circular cistern. In the first year of its growth, the leaves are tender and not having attained perfection, produce heavy reddish 'Neel'. In the second year it is called Cyerse (aree or sprouting from the root). It is light and of perfect violet colour but in the third year the herb declines, being worst of the three. It is called Cattled (Khutizal or Khuntri). It is blackish 'Neel.' After the water over the leaves in the cistern has been passed out several times, "they labour with great staves. . . . and then let it settle; scumming of the cleare water on the toppe, then labouring it afresh. Let it settle againe. . . doing this oft till nothing but a thick substance remaine, which they take forth and spread on cloth to dry in the sunne, making small balls, lay them on to dry on the sand (for any other thing would drinke up the colour). If the rains fall, it looseth its colour and glosse and is called aliad (ala or moist). . . four things are required in the 'nill' a pure grain, a violet colour, his glosse in the sunne, and that it be dry and light, so that swimming in the water, or burning in the fire, is cast forth a pure light vapour, leaving a few ashes."[1] Some farmers steep the herbs of the various plants of different years together and thus produce inferior quality hardly to be discerned.

After the death of Akbar indigo became an important article of commerce. The chief provinces engaged in the cultivation were Oudh, Lahore, Agra, Multan, Malwa, Allahabad, Gujrat, Delhi as given in the statistics of 19 years by Abulfazl.[2] But the chief regions engaged in the cultivation were the Gangetic plain, the Indus plain and Gujrat. It may be interesting to note that in the last century indigo has been thrown out, owing to the competition with the synthetic dyes. But to counteract these losses, other crops have been introduced, like the plantation crops, tea and coffee, widely grown staples as potatoes, tobacco, ground-nuts, and sweet-potatoes, and the food-grains, oats and maize."[3] According to the account left by Tavernier, much later, which must have been true even under Akbar's times, the Biana indigo was in the form of round balls and the 'Sarkhej' was in the form of flat cakes. In the flat cakes, enough sand was adulterated while in the round ones there was no sand. Two rounds were equal to three flats and the Sarkhej indigo was discarded by the higher classes and exporters generally. "Indigo was sent by land from Agra to the Cambay ports or across the Frontier to Persia."[4] Indigo during Akbar's times was much higher in value than wheat.[5] During the reign of Jehangir, indigo, in the words of Sir Thomas Roe, was "the prime commodity."[6] Sind, Gujrat, the Deccan and the whole of

1. Foster, *Early Travels in India*. (1583-1619). pp. 152-54.
2. *Ain* II, Jarrett, pp. 76-93.
3. Moreland, *India at the Death of Akbar*, p. 103.
4. Pant, *The Commercial Policy of the Moghuls*, p. 96.
5. *Ain I*, Blockmann. p. 65; Moreland, *India at the Death of Akbar*, p. 103.
6. Pinkerton, *General Travels*. Vol. VIII. (1808).
   The *Journal of Sir Thomas Roe*, p. 50.

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the East was engaged in its cultivation. During Akbar's reign, indigo was not developed in the Deccan and that on the whole of the East coast. In Agra, the important centres of its cultivation were Hindowne (Hindaun), Byana, Panchoona, Bishavor (Bisaur), Connoway (Khanwa) etc.[1] The indigo of Bengal was also coming into prominence. The usual net weight of a bale was about 220 lbs. for Biana and 150 for Sarkhej. "The effect of Dutch and English purchases was to extend the production of indigo."[2]

Speaking of Shahjehan's times, M. De Laet says : 'In the district round Ahmedabad, indigo is produced, though in quality it is far inferior than that of Biana. The people call it Cikel. (According to the compiler of the work, Mr. S. N. Bannerjee, it is the corruption of Sarkhej). The excellence of Khanwa's indigo was due to the heavy soil and brackish water, the indigo is easily broken than that grown in places where water is sweet. . . . There are other indigo centres in the province like Aligarh (Koel). . . . .and Gorsa (Khurja) 30 kos from Agra. . . . From Biana indigo is exported to Europe. . . Round about Biana, there were five important centres each having several villages under it for revenue purposes. . . . Khanwa is the centre of the following villages : Ibrahimabad, Serco, Patchiona (Pachuana), Tzonova (Sanava), Pinijara, Man Nova. The third centre is Bassenwar, the fourth is Hindaun, the fifth is Tora."[3] Tavernier too gives a long description of the produce as he himself saw and experienced. Speaking of the price prevailing in his times he says : "The man (maund) of Surat which contains 42 seers or 34½ of our pounds in value is valued from Rs. 15/- to Rs. 20/-. They make equally good at Broach. That which is made up about Agra is made up of half balls and is the most sought for in all India."[4] The usual price of sale was Rs. 36/ to Rs. 40/- per maund, the maund containing 60 seers or 51¾ of French pounds. Indigo was also found being grown in the neighbouring towns on the road from Surat to Agra. The Hollanders transported Bengal indigo from Masullipattam. The indigo of Bengal and Brampur was cheaper than Agra indigo by Rs. 24 per maund.[5] Tavernier also mentions Biana, Corsa, Sarquefs (Sarkhej), as important centres. As to the description of its cultivation he follows William Finch though differs in details. He goes on : "Indigo is made up of a herb which they sow every year after the rains are over, which when grown up, is very like our hemp. They cut it three times a year, first when two or three feet high, and they cut it within half a foot of ground. The first cutting far exceeds the later two. The second cutting is worse than the first by 10 or 12 in the hundred; and the second is better than the third by 12 p.c."[6] Tavernier differs from Finch in the matter of the details of cutting and quality. Finch maintains that the herb

1. Pant, *Commercial Policy of the Moghuls*, p. 141; Tavernier, *Collection of Travels*. p. 60.
2. Moreland, *India From Akbar to Aurangzeb*, p. 191.
3. *De Laet*, pp. 21, 44-6, Pelsart holds the same view. (*Remohstrantie of F. Pelsart Tr. Moreland & Geyl* p. 12.
4. *Travels in India*, Tavernier. (Edited by Ball) Vol. I, p. 60
5. *Ibid.*
6. *Ibid.* p. 61

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sown once lasts for three years whereas Tavernier speaks of annual sowing of the crop. Tavernier mentions the first cutting to contain the best indigo whereas Finch prefers the second cutting. This is quite probable that the difference might be due to the observations in different localities. Tavernier's account is more reliable due to his long stay in the country, for nearly 20 years. The labourers kept a cloth over their mouth after nine or ten days of continuous work, "they spit nothing but blue." The natives cheated the purchasers by mixing sand with the balls of indigo but the Europeans took care to separate it lest they had to pay freight for the whole.

In the times of Aurangzeb indigo was largely exported from Bengal. The best quality continued to come from Biana and the second best from Sarkhej and from Golkunda. Sir Jadunath says : "Biana indigo was sold at prices 50 percent higher than varieties grown in other parts of India. . . . In addition to what was exported, there was a large internal consumption because it formed the basic material for washing and bleaching ordinary cotton to a pure white colour. Thus cotton cloths were sent from their places of origin to Central spots for washing, such as Agra, Ahmedabad, Masulipattam and certain places in Bengal, probably Dacca and Qasimbazar. . . . ."[1] The indigo trade declined after Aurangzeb. Dr. Pant says. "The trade in indigo suffered from three causes : (a) accidents of season, (b) the disastrous famine of Gujrat in 1630, the Biana rains of 1621 and 1640 which turned indigo fields into fleating ponds and the complete destruction of crops in 1625 and 1646 by locusts—all these so killed the industry that it never revived afterwards."[2]

(IV). Sugar Cane

Sugar is derived from two main sources—sugar-cane and sugar beet. The latter source having been developed in the first quarter of the 19th century by Napoleon Bonaparte was altogether unknown in India during the period under discussion. The former is a tropical product requiring abundant heat and an exceedingly moist soil. Most rice fields, therefore, are admirably adapted for sugarcane. The juice is obtained from the cane by crushing it between the heavy rollers and the sugar is then obtained by evaporation and crystallisation. The syrup residue is known as molasses and the yellow crystallised sugar finally undergoes a process of refinement. The chief considerations for sugar production in the country appear to have been, as in the modern times, the slight attention required by the crop, its superior richness in sugar, and the cheapness of tropical labour. The crop need not be sown every year as the roots grow up year after year requiring much less care and attention.

1. J. N. Sarkar, *Studies in Aurangzeb'e Reign* XVII p. 275 (Rs. 36 to Rs. 40 of 60 seers) (52 French Livres) against Rs. 15 to Rs. 20 per md. of 42 seers. (34 French livres) fetched by Gujrat indigo. *Tavernier* II. p. 9.
2. Pant, *Commercial Policy of the Moghuls*, p. 195.

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Under Akbar's times Bengal was the first in sugar production. In his account of Bengal province, Abulfazl is, however, silent about sugar though he says : "There grows a tree whose branches when cut exude a sweet liquid which quenches the draught of those athirst."[1] It appears quite probable that he might be thinking of sugarcane. Even Babar makes a reference to sugar-cane being grown in India.[2] He is silent to give details of the provinces. *Ain* refers to two kinds of sugar-canes : paunda and ordinary, being grown in the provinces of Agra, Allahabad, Oudh, Delhi, Lahore, Multan, Malwa and Ajmer. Sugar-cane was double as costly as wheat in the first years of Akbar's reign in practically all the provinces. The following table gives a rough estimate of the prices prevailing then:[3]

1.	Agra	Sugar-cane paunda	150 to 200 dams	per maund.
		Sugar-cane ordinary	76 to 180	do
2.	Allahabad	Paunda & ordinary	do	do
3.	Oudh	Paunda	200	do
		Ordinary	64 to 180	do
4.	Delhi	Paunda	200	do
		Ordinary	80 to 180	do
5.	Lahore	Paunda	200	do
		Ordinary	94 to 180	do
6.	Multan	Paunda	200	do
		Ordinary	70 to 150	do
7.	Malwa	Paunda	150 D or 6 M-150 D to 7M-75D	
		Ordinary	70 to 150.	do
8.	Ajmer	Paunda	239·6 dams	do
		Ordinary	86·1 to 120 dams	do

The table shows that sugar cane of paunda quality was valued highest in Ajmer. This was due to the drier climate which allows only restricted crop as compared to other provinces. In Kota State sugar-canes were sold at the rate of 1000 per rupee.[4] In succeeding years Chhar Gulshan refers to sugar being grown in Aurangabad,[5] and Khulasat-ut-Tawarikh in many other parts including Bihar.[6] Bernier (1656-1668) speaking of Bengal sugar adds "Sugar in large quantities is supplied to Golcunds, Karnatic, where very little is grown, to

1. Abulfazl, *Ain* II Eng. Tr. Jarrett. p. 131.
2. *Waqa-i-Babri*, Per MSS. pp. 155 & 153. On p. 150 he refers to sugar as *Shakar az jami-i-aghzia az shirini sar balandi darad....*" "wealth of India" brought to Kabul by caravans.
3. *Ain* II. 77 to 93.
4. Kota State Old Records, File No. 2 p. 134. In Mena Dhakarkheri Village, 6 miles east of Kotah City 65000 canes were sold in Rs. 65 in V. S. 1707.
5. *Chhar Gulshan*, R. Chhatterman. Per MSS. (S. B. U) p. 53. His words are, "*darin suba mewa bisyar khususan neshakar....*"
6. *Khulasat*, Sujan Rai. (Per MSS) S. B. U. p. 7 in general and p. 28 for Bihar. Referring to sugar quality he says : "*shakar bar jami-i-aghzia sar balandi darad*" it supersedes all other food materials in sweetness."

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Arabia and Mesopotamia through the towns of Mokha and Basra and even Persia by Bander Abbas. Bengal is famous for sweetmeats specially in places inhabited by the Portuguese who are skilful in the art of preparing them, and with them, are an article of considerable trade.''[1] Again Bernier emphasises the importance of country's sugar adding : ''Many varieties of products : Sugar, Cotton, Silks the Kingdom is the common store-house for these kinds of merchandise not of Hindustan only but of all the neighbouring kingdoms and even of Europe.''[2] De Laet holds the same view when he says that ''the whole of the country between Agra and Lahore is well cultivated... much sugar is produced.'' He also refers to sugar production in Bengal and Golcunda.''[3] In Aurangabad Province black canes were produced so juicy as one could yield 5 seers of juice.[4]

Dr. Pant's remark that 'sugar was sent to North India by water' (from Bengal)[5] is not borne out by contemporary authorities. Moreover practically every province .like Bihar, Allahabad and Agra to Lahore produced enough sugar as pointed out above. Bernier, of course, uses the same words for rice when he says: ''Bengal Poduces rice in such abundance that it supplies not only the neighbouring but remote states..... It is carried up the Ganges as far as Patna....''[6]

As Europe did not produce beet-sugar those days, it depended for its supplies on Indies and China in the East and Brazil and Antiles in the West. England not being on good terms with Portugal, had to fall back upon the Eastern supplies. The Eastern market was to a great extent controlled by the Dutch who mostly worked up the Bengal sugar.[7] Indian sugar under Jehangir's reign was of three types: Candy, Powdered and jaggery as at present. ''The first two kinds were in demand and the factors at Surat used to export them. Ahmedabad and Agra were two important manufacturing centres of high class sugar.''[8] In India of Akbar's time, sugar was a luxury of the rich, and long time afterwards also it remained to be so. Mr. Moreland rightly points out : ''Conditions in the world's sugar trade have changed greatly since the 17th century. The commodity was not, as it now is, an article of general consumption in Western Europe, but must rather be classed as a somewhat expensive luxury''[9] ..... Jaggery was still the commonest form of sugar from which, by a tedious process of refining white sugar of fine grain, and sugar crystals of large size, was manufactured.... Candy was exported to England by the factors from Surat. The size of the sugar bales exported was 296lbs. It is probable that this must have contained packing material. In

1. *Bernier's Travels* L. p, 435.
2. *Ibid.* p. 439.
3. *De Laet*, pp. 54, 71, 73.
4. *Chhar* Per MSS p. 53.
5. Pant, *Commercial Policy of the Moghuls*, p. 98.
6. *Bernier* I. p. 435.
7. Moreland, *From Akbar to Aurangzeb*, cf. Chap. IV. p. 138-39.
8. *Ibid.* Pant, *Commercial Policy of the Moghuls* p. 142.
9. Moreland, *Akbar to Aurangzeb*, p. 138.

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1636, the Dutch merchants exported Bengal sugar from Masullipatam, and in the forties, the export trade to Batavia was nearly 5 lakhs of pounds. The English company was slow to develop trade from Bengal. The first sign of extensive business was an order sent out in 1659 to buy 700 tons. But this order was reduced a year later.[1]

Under Aurangzeb, Malwa from the Jumna to Narbada, and Rajputana, on the west and Bundelkhand on the east, enjoyed good reputation as an agricultural part producing opium, grapes, melon, betel leaf and sugar.[2] In Kota State, white Tilli was sold at the rate of 4 Mds. 34 seers at Rs. 4/-1 taka (In one rupee there were 26 takas).[3]

1. *Ibid.* Appendix D. pp. 340 and 139.
2. *Ohhar,* Per MSS. p. 53;
   Khulasat, Per MSS. also refers to Malwa p. 7;
   C. H. I. Vol. IV Chap. X. p. 312.
3. Kotah old Records, File 2 p. 148. Village Nawalkhera, 2 miles west of Kota, on the way to Bundi.

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CHAPTER VI

RAW MATERIALS (Continued)

(1. *Forest Produce* 2. *Minerals* 3. *Miscellaneous*)

1. Forests in General

The wider extent of forests in the Mughal times and the prevalence of wild animals in areas now thickly populated are attested by various contemporary records. Babar himself records in his Memoirs that "in many places, the plain (of Hindustan) is covered by a thorny bushwood to such a degree that the people of the Pargana, relying on these forests, take shelter in them, and trusting to their inaccessible situation often continue in a state of revolt, refusing to pay their taxes."[1] The submontane forests "extended much farther into the United Provinces and Bihar than is now the case, and the frontier of settled cultivation might be defined roughly by a line drawn very little to the North of Bareilly, Gorakhpur and Muzaffarpur. The prevalence of forest land meant necessarily the presence of large numbers of destructive animals."[2] In the hilly country south of the Ganges and the Jumna, elephants were common. Lions in Malwa and rhinoceros on the Gogra, and tigers in the Ganges plain were a common feature. It was fashionable in those times to maintain extensive hunting grounds near Agra and other provincial seats. Abulfazl writes in his Akbar Nama that forests were traversed and various strange beasts seen during a march along the Southern bank of the Gogra in what is now the congested district of Azamgarh. Jehangir tells in his Memoirs how antelopes overflowed from one of his preserves into the cultivated tracts and were not subject to any kind of molestation.[3] William Finch declares (1608-11) that the road from Jaunpur to Allahabad lay through a continuous forest. He records the presence of lions and tigers on the road to Jalaur.[4] In Babar's days the rhinoceros abounded in the country adjacent to the Gogra river and also in the neighbourhood of Peshawar; wild elephants were found at Karra in the modern Allahabad district and were hunted by Akbar in places like Agra, Malwa, Marwar and Bihar where they are now quite unknown. Tigers were shot by Akbar near Muttra and some times in other districts. Lions, of which only a few specimen survive in Kathiawar, roamed over the greater part of the North, Western and Central India. Terry describes how lions troubled his encampment at Mandu, now in the Dhar State, and speaks of the surrounding forests swarming "with tigers and other beasts of prey and many wild elephants."[5] Speaking of the wilderness of Bengal Dr. Radha Kamal

1. P. Kennedy, *History of the Great Mughals*, I. p. 145,
2. Moreland, *India at the Death of Akbar*, p. 7.
3. *Tuzak-i-Jehangiri*, Per. MSS. (S. B. U.) Vol. II p. 284.
4. Forester : *Early Travels in India*, p. 174.
5. Smith, V. A., *Akbar*, p. 401.

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Mookerjee says : "Western Bengal had already possessed a dense population by the 16th century; while some of the most heavily populated parts of Eastern Bengal were swamps and wilderness during the times of Akbar. A large portion of the districts of Jessore, Faridpur, Noakhali and Bakarganj was full of forests and swamps inhabited by wild buffaloes, rhinoceros and tigers till late Mughal times."[1] There was a dense jungle in the Akbar's Sarkar of Mahmudabad (comprising Faridpur, Jessore, Khulna, Noakhali and Western Baqarganj). On the occasion of the arrival of Khan-i-Jehan Lodi in the 16th century, south-west of Jessore was forested. He began the reclamation of the Sunderbans. Khulasat makes a reference that as late as 1695 wild elephants roamed over the forest of Khalifabad. European travellers like Ralph Fitch (1583-91) and Renell (1751) found large parts of Bengal occupied by forests and swamps.[2] With bows, carbines, and lances, Jehangir used to hunt lions and a Mughal painting of 1623 in the Indian Museum of Calcutta depicts the emperor shooting a lion in the Rahimabad pargana of the Bari Doab.[3]

Large tracts of Malwa plateau were covered with forests rich in economic produce. Manucci writes of having come across inaccessible mountains with numerous beautiful trees and traversed by crystal streams. "The jungles of Bijaigarh, Hindia and Garh were noted for sheltering wild elephants. In the jungles of Dhar there were big bamboos. . . . . Lac was made in Dhar and lac-makers were often required there for the purpose."[4]

The above account clearly shows that the forest area in the Mughal times was larger than it is at present times. But practically little revenue was derived from them. In the Deccan, in later years, the Peshwa's Government obtained a small revenue by selling permits to cut wood. It is, however, clear that there was a complete lack of scientific management so far as forests were concerned in the Mughal times. A far sighted policy of conservation and afforestation was not followed in India till 1855. "The problem for them (the Moghuls) was deforestation and not afforestation. Large tracts of forests provided hiding places for bad classes of people and the animals were a

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1. *Journal U. P. Hist. Sec.*. Vol. XIV. Pt. II. Dec. 1941. pp. 49-50—Dr. Radha Kamal's article ("*Economic History* 1600-1800).
2. *Ibid.*
3. P. Brown, *Indian Painting*, p. 132.
   Pinkerton, *Collection of Voyages* Vol. VIII p. 307.
   Alexander Hamilton (1688-1723) refers to the existence of swift deer, antelopes, hares and foxes, leopards and shoe-goose near Thatta which explains existence of forest in the area.
4. *Khulasat*, Sujan Rai. Per. MSS. p. 34a;
   India of Aurangzeb Chap. IX. p. 56;
   Nawazish, Pt. p. 29 b;
   Dr. Raghubir Singh, *Malwa in Transition*, p. 8.

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source of danger to life and property. Akbar encouraged the reclamation of forest land for cultivation purposes. Unfortunately his successors discontinued his policy.[1]

Mr. Stebbing emphatically maintains that the "Mohammedans had no regard for forests, nor any religious scruples about destroying them. Rather he was taught that the forest was a free gift of nature and belonged to any one just as the water did. . . . On the other hand, the planting of trees either for fruit which they yielded, or for the purpose of obtaining shade, was an act which was held in high esteem in eastern countries, specially in India from early times."[2] Like Persia, Asia Minor and Spain etc., India suffered in her forest wealth from Mohammedan incursions.

The Mughals did not realise the important role which the forests play in the general and economic prosperity of the country, as also in providing employment to the masses. If accurate estimates were available for the period under review they would certainly have exhibited that, apart from the jungle population, which was directly dependent upon forests, and the large number of wood-cutters, sawyers, carters, carriers, raftsmen and others working in and near them, employment on an enormous scale was provided to persons working in the raw products. Amongst the latter class may be mentioned carpenters, wheel-rights, coopers, boat makers, rope makers, and other classes of skilled workers. It cannot, however, be denied that some interest was displayed by a few rulers, though of course indirectly, in the forest policy of the country. In one of Akbar's royal proclamations, it was directed that on both sides of the canal "down to Hissar, trees of every description, both for shade and blossom, be planted so as to make it like the canal under trees in paradise; and that the sweet flavour of the rare fruits may reach the mouth of every one, and that from these luxuries a voice may go forth to the travellers, calling them to rest in the cities, where their every want will be supplied."[3] Again the orders for the abolition of various Abwabs by Aurangzeb, also speak, though indirectly, the interest he took in the forest produce of the country. He abolished duties on the leaves of dhak (Butea frondosa) or Bengali Palash and Pala (Jherberi or Zizyphus trees) and bark of babul (gum-plant) acacia etc., brought from the jungles for sale. So also duties on grass and fuel wood were excused.[4] Tax for grazing of bullocks taken from Banjaras (wandering grain sellers, and other people was also excused. Mirat-i-Ahmadi explains thus: "The collectors take one tanka under the name of gau-charai every time that bullocks of carts and pack oxen are brought into the city and fed on purchased grass and stalks of millets "(Karbi)."[5] The same authority refers to another practice. . . "in the city of Pattan, the officials by violence exact four Muradi" tankas every year per head

1. Pant, *Commercial Policy of the Moghuls*, p. 112.
2. Stebbing, *E. B. Forests of India* I., pp. 31-2.
3. *Calcutta Review* No. 23, Forests of India (E. B. Stebbing) Vol. I pp. 31-2.
4. Sarkar, J. N., *Mughal Administration*, V. p. 94.
5. *Mirat-i-Ahmedi*, Per. MSS. (S. B. U.) p. 260;
   Sarkar, *Mughal Administration*, p. 97.

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of sheep, eight annas per cow and one rupee per buffalo, even though they may not be grazing at large (saima) and their price is low; below the nisab (the canonical minimum value for taxation)."[1] All these taxes were excused keeping the interest of the public in mind. Likewise abwabs charged on the paper used in official accounts and the receipts granted to peasants were abolished.[2] Mirat further adds "Foujdars and krories take from the men of the parganas on the bank of the Sabarmati and the Watrak rivers, by force, what they call kachari amounting to Rs. 10 to Rs. 15", and again, "If a resident of Ahmedabad wants to cut a tree in his ancestral house, that is doing harm to his building, the officials of the place will not allow him to cut it down or even any branch of it, unless he pays them some thing."[3] This practice was stopped. "From every wagon of grass or millet stalks in several places, they take one bundle, and in the case of firewood, 5 seers. And when loads of these are carried on men's heads, they take four badami from each."[4] These were also abolished.

2. Raw Materials From Forests

Forest produce is divided into two main heads : (i) Major Produce, *i.e.*, timber and firewood and (ii) Minor produce, comprising all other products such as bamboos, leaves, fruits, fibres, grass, gums, resins, barks, animal and mineral products etc. The chief raw materials from this source are as follows :

i. Material for Paper Manufacture

In modern times paper is manufactured from wood-pulp, bamboo, various grasses and rags. In the period under *discussion* paper was not manufactured from bamboo and grasses, it being a research of the present century. It is possible that paper being a home industry, wood pulp was being utilised. Paper was at this time gradually coming into use throughout Southern India. Early travellers in this part of the country notice that all writing was done on palm leaves, and as late as 1625 A.D., when De La Valle obtained a specimen manuscript, it was written for him on palm leaves.[5] Pyrard tells us that the Portuguese at Goa imported their supplies of paper partially from Europe and partially from China and Cambay Ports. The Cambay paper was made in several parts of India by hand processes which have not yet entirely disappeared. The quantity used was, however, small. The Education was not developed and was conducted by methods which still survive in which very little paper is used. The art of printing was introduced at a few places by the missionaries during the 16th century, but it was not practised for secular purposes till a later period. Paper was used in "Public offices by merchants for

1. *Ibid.* Vol. I. p. 263; Sarkar p. 98.
2. *Ibid.* 260, *Ibid.* 99.
3. *Ibid.*
4. *Ibid.* p. 100 (Sarkar); Badam or almond was used in Gujrat as a sort of counter like cawries in North India. 100 badams make one anna. (K. M. Jhaver quoted in Sarkar Mughal Administration V. p. 101).
5. Moreland, *India at the Death of Akbar*, p. 164.

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their accounts and by scholars and by caligraphists in manuscripts, but there were no printed books, no news-papers or posters, very few letters; and "the facts justify the conclusion that the products of the articles of stationery were very small indeed."[1] Bihar was noted for the production of good paper and so was Lahore under Akbar's reign.[2] It was also manufactured in Oudh in the reign of Aurangzeb.[3]

(ii). Raw Material for Furniture making

The furniture used by the general population was very meagre. Chairs and tables were not in use, except at the port towns by the Portuguese, the Dutch and the English or by the merchants residing there.[4] The chief manufactures of wood included bed-steads, chess-boards, stools, ink-stands, ornamental boxes and ordinary things of common use.[5] Teak, sesum, babul and mango were the chief materials used. Costly rarities were prepared from sandal wood. The houses of Muslim merchants in the West Coast were not in all cases so bare as of other Indians. Barbosa mentions that at Rander near Surat they were well-kept and well-furnished but with these exceptions "the absence of furniture appears to have been characteristic of the whole country, and speaking generally it may be said that the wood-working industry was limited by the absence of demand for its products rather than by any scarcity of material."[6]

The State of Gujrat manufactured ink-stands, boxes with engravings.[7] Speaking of the country as a whole De Laet says : "They (the poor people) have very little furniture and even in the houses of the nobles little furniture was used except in the women's apartments where one may see a great quantity of gold and silver vessels.,"[8] Linschotten writing of the West coast says that "the house-hold stuff of the people is mats of straw both to sit and lie upon, and their tables and table-cloths and napkins are made of plantain leaves.,[9]

(iii). Materials for Boat and Ship building

High class timbers formed the materials for boats and ship-building. The provinces of Bengal, Agra, Allahabad, Thatta, Lahore and Malabar supplied the required type of timbers. The *Ain* makes a reference to frequent travelling by boats in Bengal and Gujrat provinces. Speaking of Bengal, Abulfazl says "Travelling is by boats specially in the rains and they make them of different kinds for pur-

1. *Ibid.*
2. Pant, *Commercial Policy of the Moghuls*, p. 92 (1930 Ed.).
3. *Khulasat*, Per. MSS. p. 26.
4. Moreland, *India at the Death of Aurangzeb*, p. 162.
5. *Ibid.*
6. De Laet, *Empire of the Mughal* p. 88-9.
7. Sujan Rai, *Khulasat*, Per. MSS. p. 34.
8. *Khulasat*. Per. MSS. p. 34
   De Laet, p. 89.
9. Moreland, *India at the Death of Akbar*, p. 273.

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poses of war, carriage or swift sailing. For attacking a fort, they are so constructed that when run ashore, their prow overtops the fort and facilitates its capture.''[1] Again in his description of Gujrat province he says : "Vessels sail from and trade to Ghogah. The cargoes are put into small ships called "Tawari'' which transport them to Khambayat.''[2] Earlier in the fifteenth century, Conti had suggested the existence "of 1000 tun ships (he says 2000 butts; one tun is equal to 2 butts), much larger than any with which he was familiar in the Mediterranean, and the early visitors to Western India described vessels of even greater size, second only to the huge carracks, built by the Portuguese. . .; used for pilgrim voyage to the Red Sea.''[3] The Portuguese constructed a few carracks at Bassein on the coast North of Bombay, though the vessels of this class were usually built in Europe.''[4] Smaller vessels were made in the country itself.

Ship-building industry generally centred on the sea-coast. In modern times it is found "in close proximity to supplies of steel and fuel, but in the 16th century, the determining factor was timber, and ships could be built only where suitable timber was available.''[5] The Portuguese could dominate the commerce of the Indian ocean, simply because the shores of the Red Sea lacked supplies of timber fit for ship-building purposes. A certain amount of ship-building was carried on in Tennasarim and Sumatra but the general attitude of the authorities suggests that (apart from the Portuguese trade to Europe), "The great bulk of the Commerce in the Indian seas was carried in ships built in India, and that most of these, and certainly all the large ones, were constructed on the west coast, not at any one centre, but at various ports or inlets within easy reach of the forests. It is practically certain that India also built all the small boats required for the coasting trade from Bengal as far as Sind, and the aggregate volume of shipping was therefore very great when measured by contemporary standards.''[6] An adventurous Frenchman, who after a long stay on the Maldiv Islands where his ship wrecked, fell in the hands of the Portuguese and was taken to Goa in 1608. "He makes a special reference to the timber of the country which supplied to all the Portuguese settlements of the country material for building ships and houses''[7] He was Francois Pyrard de Laval. "This place, Bassein,'' says he, "is to the Indies what Biscay in Spain is here, for, all the vessels built for the King of Spain in the Indies are constructed there, because no such country yields timber.''[8] At a much later date Khulasat speaks of boat construction in the province of Thata.[9] Again Chatterman

1. *Ain*, Jarrett. (II Part). p. 134.
2. *Ibid* p. 248.
3. Moreland, *India at the Death of Akbar*, p. 171.
4. *Ibid.*
5. *Ibid.* p.168.
6. *Ibid.* p. 170.
7. M. S. Commissariat, *History of Gujrat* Chap. XL. pp. 534-5.
8. Voyage of Pyrard de Laval: *Tr. by Gray & Ball* (Haklyuit Soc.) 1888. Vol. II p. 182.
9. *Khulasat*, Per. Mss. (S. B. U.) p. 36.

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supporting Ain says that in Bengal there were 4200 big boats and 4400 smaller ones used for navigation.[1] All these must have been constructed from local timbers of the forests. Like-wise boats were locally constructed in Lahore province in Multan as also in Surat.[2] The river system of the Ganges and the Indus certainly carried much larger traffic than they carry now. "Fitch travelled from Agra to Bengal with a fleet of 180 boats, the vessels available on the Jumna sufficed on occasion to transport Akbar's enormous camp and the accounts, which we possess of Lahore and Multan, indicate that the Indus system was at least equally well provided. The boats in use were fairly large:at Lahore they were 60 tuns (Akbar's times) and upwards, vessels fit for coasting trade were built at that city, and also at Allahabad; some of the larger ones on the Jumna were 100 tuns while those on the Ganges ranged upto 400 to 500 tuns; and it is clear that a considerable volume of traffic could be carried by these means."[3] This shows the sufficiency and the utility of the forest wealth of the country.

(iv). Gum-lac

Bengal and Orissa had a monopoly of it. It served a two-fold purpose. First a brilliant red dye was extracted from it, then this was used in varnishing toys, and in the making of women's bangles of which there was an immense local consumption internally. "The Dutch exported it to Persia for red colour. The lac bangle and toy industry flourished most in Gujrat (specially at Surat) but it must have been diffused in every part of India more or less."[4] Lac was made in Dhar also for the purpose.[5]

Gum-lac is a kind of wax produced on the barks of standing trees. It was sold at 7½ Mahmudis per maund during the reign of Shahjehan. Gum-lac in sticks of wax was priced at 40 Mahmudis per maund. Some sticks of wax were sold at 50 Mahmudis per maund, and some at 60 or more when mixed with musk. Bernier adds : "Gum lac came from Pegu and Bengal where it was very dear. The natives fetch lively scarlet colour out of it with which they paint their calicuts. Nevertheless, the Hollanders buy it and carry it into Persia for the same use of painting".[6] The refuse after the extraction of colour was used for the manufacture of sealing wax. Pegu gum lac was compartively cheaper but not clean. The English and the Holland Company carried away every year 150 chests at 10d a pound."

(v). Miscellaneous Products

Writing in 1328 A. D . Abdulla Wasaf says : The leaves and the barks, the exudations of the trees, the grass and woods of the country,

1. *Chhar Gulshan*, Chatterman. p. 40 (Per MSS.)
2. *Ibid.*
3. Moreland, *India at the Death of Akbar*. p. 167.
4. Sarkar, J. N., *Studies in Aurangzeb's Reign*. XVII. p. 281.
5. Nawazish, Per Text. Letter Book p. 29b.
   Dr. Raghubir Singh, *Malwa in Transition*, p. 8.
6. *Bernier's Travels* II, p. 63.
7. *Ibid.*

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cloves, spikenard, aloe wood, sandal and camphor and fragrant woods of the Mandal (Coromondal?) are important forest products. Red bakham-wood are cosmetics and rouge for the face, the thorns and worm-woods of the fields are regulators for its source of life and were useful electuaries in the art of healing for the throes of adverse fortune, its icy water was a ball of mummiya for the fractures of the world . . . the myrobalans imparted the blackness of the youthful hair . . . its rubies and cornelians were like the lips of charming girls.''[1] The above description held true even during the Mughal period. In the province of Thatta, "clear lac was available.''[2] The wood linga grew only in this country. "It was rather a weed than a wood and nothing of it was useful, but the root called Putchock, or radix duleis, a good ingredient in the composition of perfumes, great quantities of which were exported to Surat, and from there to China.''[3] Blackwood and sandal came from the Western-ghats and Mysore. Houses were made of wood on temple models in Gujrat. Malabar provided cocoa-nut and areka trees.[4] Other produce of the forests included teak, anglique for building purposes, sandal wood of white and yellow colour, caffia-fistula, nux vomica and cocolus indica. Various other drugs also grew in plenty.[5]

Under Jehangir's reign sandal wood came into prominence and was supplied in Agra by the Portuguese who used to obtain it in Timar Island (in the Dutch East Indies) and transport it to Malacca and thence to Goa and Cambay. Musk was sent from Bhutan and Tibet to Patna. Through Kamayun it was sent to Delhi. Ambar, a congelation of a species of gum which forms in the sea was in great demand and came from the coastal provinces[6] . . . Under Aurangzeb honey production was the monopoly of the Emperor. Babul bark for tanning leather came from Lahore, Rajputana and Agra Provinces.

(vi). Fruits

The Mughal Emperors in general and Akbar in particular had a special liking for fruits which were locally produced in several provinces and even imported from the North-West countries to meet the demand for which unfortunately no figures are available. In his Memoirs, Babar refers to the production of melons, grapes, peaches, apricots, pomegranates, almonds, guavas, jack-fruits, orange, lemons, plantains etc., in Kashgar, Samarqand, Kabul and Lamnat and Ghazni.[7] He further writes that the grapes of Ghazni were better than those of Kabul.[8]

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1. Abdulla Wasaf, *Tajariyatul Asar* : Extract from Elliot Vol. III pp. 28-35.
2. *Pinkerton Travels*, Vol. VIII Captain Alexander Hamilton's account in the East Indies. (1688-1723) p. 307.
3. *Ibid.* p. 308.
4. *Ibid.* p. 310.
5. *Ibid* p. 365.
6. *Pinkerton Series.* Vol. VII. Goez Account, p. 594.
   Tavernier Travels II, p. 182.
7. *Waqa-i-Babri*, Per MSS. (S. B. U.) pp. 2, 150, 153, 157, 473.
   Chhar-Gulshan : Per MSS. (S. B. U.) p. 50.
8. *Waqa-i-Babri* (Per MSS). p. 161. Actual words are.
   "*. . . az angur-i-Kabul angur-e-Ghazni behtar ast. Kharpuza az o ham as, kharpuzy Kabul ziada tar ast. Seb o ham khub mi shawad.*"

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Akbar looked upon fruits as one of the greatest gifts of the creator and paid much attention to them. Abulfazl writes : "The horticulturists of Iraq and Turan have settled here and the cultivation of trees is in a very flourishing state. Melons, water melons, peaches, almonds, pistachios, pomegranates etc. are every where to be found. Ever since the conquest of Kabul, Qandhar and Kashmir, loads of fruits are imported; throughout the whole year the stores of the sellers are full and bazars are well supplied. Musk melons come into Hindustan in Farwardin (Feb-March) and are plenty in Urdi-bahisht (March-April). They are delicious, tender, opening, sweet-smelling, specially the kinds called Nashpati, babashaykhi alshiri, alcha, barg-i-nay etc., . . . good ones are obtained in the Punjab and Bhabar. . . various kinds of grapes are to be had in Khurdad (May) to Amurdad (July) whilst the markets are stocked with Kashmir grapes during Shariwar (August-September)."[1] Referring to price, the same authority continues "Eight seers of grapes sell in Kashmir for one dam and the cost of transport is Rs. 2/- per man (maund). The Kashmiris bring them on their backs in conical baskets which look very curious."[2] Grapes come from Kabul from Mihr (September) till Urdibahisht. . . from Samarqand they bring melons, pears and apples."[3] The following table gives an idea of prices of some important fruits in the times of Akbar.[4]

Turani Fruits

Arhang melons first quality at	Rs. $2\frac{1}{2}$
Kabul melons first quality at	Re. 1/- to Re. $1\frac{1}{2}$
Arhang melons second quality	Re. 1/- to Re. $1\frac{1}{2}$
Kabul melons Second quality	Re. $\frac{3}{4}$ to Re. 1/
Kabul melons third quality	Re. $\frac{1}{2}$ to Re. $\frac{3}{4}$/-

(These prices appear to be per maund)

Samarqand apples 7 to 15	Re. 1/-
Pomegranates per maund	Rs. $6\frac{1}{2}$/-to 15/-
Guavas 10 to 100	Re. 1/-
Kabul and European apples	5 to 10 Re. 1/
Kashmir grapes per maund	108 dams
Dates per seer	10 dams
Raisins	9 dams
Almonds without shell per seer	28 dams
Pistachios per seer	9 dams
Khubani (dried apricots)	8 dams

1. Abulfazl, *Ain*, *I*, Blockmann, p. 68,
2. *Ibid.*
3. *Ibid.*
4. *Ibid.*

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Sweet Fruits of Hindustan

Mangoes per 100 upto	40 D.
Pineapples one for	4 D.
Oranges 2 for	1 D.
Sugar-cane two for	1 D.
Plantain two for	1 D.
Ber (plums) per seer	2 D.
Pomegranates per maund	80 to 100 D.
Guavas, two for	1 D.
Figs per seer	1 D.
Mulberry per seer	2 D.
Melons per man (maund)	40 D.
Water-melons, one	2 to 10 D.
Khirni per seer	4 D.
Dates per seer	4 D.

The above price schedule shows that most of the sweet fruits of Hindustan were much more highly priced as compared to modern times. Our table adduced on page 65 Chapter 4 shows that even an unskilled labourer getting 2 dams per day could afford to maintain himself much better than in the modern times. In 2 dams he could purchase 7 lb.4 oz. wheat. This was the price of 5 mangoes, or 4 oranges or 4 sugar-canes or 4 plantains, half a seer khirni or half a seer of dates, or one seer of plums, or one seer mulberry, two seers of melons and so on. This makes it clear that fruits could not enter into the daily diet of our unskilled labourer and the common people.[1]

Some one or the other kinds of fruits were grown in every season : Mulberry or the guavas during spring season, pine-apples, oranges specially in Sylhet,[2] sugar-canes, ber (plums) during winter, figs and melons during summer, pomegranates, water-melons and guavas during rains like the present times.[3]

The rates of some of the dry fruits were as follows :

Dates per seer.....	6 D.
Walnuts ,,	8 D.
Che runji ,,	4 D.
Supari ,,	8 D.

Abulfazl gives long description of mangoes, pineapples, Oranges, sugar-canes and fruits.[4] Varieties of fruits like grapes, melons, mangoes, peaches, apricots, were grown in the provinces of Allahabad, Malwa and Kabul.

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1. The schedule shows that the Indian fruits were dearer as compared to modern times
2. *Chhargulshan*, Chatterman, Per MSS. (S. B. U.) p. 39.
3. *Ain I.* Blockman p. 70.
4. *Ibid*, pp. 72-76.

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Bernier writes : "A fruit market (in Delhi) makes some show. Summer dry fruits from Persia, Balakh, Bokhara, Samarqand also almonds, and pistauches, *risins*, pine-apples, apricots, excellent fresh grapes in winter, are available."[1] Fruits were dear in Aurangzeb's times; a single melon "would cost 1½ crowns forming food only for umraos and the Magol who spent 20 crowns on fruits for break-fast." But in summers melons were cheap, but more inferior, in kind. Persian seeds were sown and good melons were scarce, as soil was not congenial and seed degenerated after the first year." Mangoes lasted for two months and were grown in Delhi but the best varieties came from Bengal, Golcunda and Goa.[2]

In the times of Shahjehan peaches, apricots, grapes and melons were grown on the boundary of Tibet and Kashmir, all in one season. Oranges of Sylhet were famous.[3]

Khulasat speaking of the quality of mangoes produced in India aptly remarks[4] :

"Maghzake khush taza bar bostan — *Piro Jawan har do Kharidar oo*
Laghze tarin nemat Hindostan." — *Tiflo o akan ashiq didar oo"*

"The sweet mango, the best and the rarest gift of India; be he old or young, he is fond of it."

Fruit gardens were in plenty in Kashmir. Bernier mentions melons, water melons, water persnips, raddishes, and grapes.[5]

The production of fruits was much encouraged throughout the Mughal period. Malwa was famous for mangoes, melons, grapes and beetles.[6] Oudh for grapes, figs, pomegranates, mangoes, oranges and lemons. Melons were produced in Ahmedabad. Bijainagar was famous for fruits and flowers.[7] The road from Sunargaon to Sind (in Punjab) called the Grand Trunk Road constructed by Shershah was planted with fruit trees on both sides.[8]

3. Minerals

The country did not produce enough minerals. The mineral wealth of Bengal, Bihar and the Kolar mines of gold had not been

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1. *Ibid.*
2. *Ain II*, Jarrett, Allahabad p. 169; Malwa p. 207; Gujrat p. 246. Kabul p. 352.
3. *Bernier Travels I*, p. 249 (Letter to Dela Valle Mothe de Vayer 1-7-1663; Letter to Colbert p. 209.)
4. *Shahjehan Nama*, Per MSS. (S. B. U.) p. 130—Actual words are : "*Mewa hai zard aaloo wa shaft aloo wa noot wa kharpuza wa seb or angur baghait shirin....*"
   Chhar Gulshan, Per MSS. p. 39.
5. *Khulasat-ut-Tawarikh*, Sujan Rai Per MSS. p. 7. Other fruits mentioned are plantain, water-melons, peaches, apricots, etc.
6. *Bernier's Travels*, Vol. I. p. 395.
7. *Khulasat* : Per MSS. p. 32.
   Mirat-i-Aftab Numa, Shahnawaz Khan, Per MSS. p. 316.
   Tazkirat-i-Waqiat, Khwaja Hafiz. Per MSS. p. 96.
   Sarkar, *Aurangzeb*, V. p. 380.
   Raghubir Singh, *Malwa in Transition*, p. 7.
8. *Tarikh-i-Farishta*, Per MSS. p. 228.

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explored. No records of mineral wealth from the times of Babar to those of Humayun are available. Abulfazl, in his Ain throws light upon the development of minerals in Akbar's times. The production of gold in the country was negligible, and the country acted as a chasm for the vast supplies of silver and gold, besides other minerals, which were annually imported into the country.[1]

The Ain mentions the existence of Sarafs and experts adept in the art of assaying gold and silver and purifying them.[2] A few other later authorities also mention the existence of some important minerals in the country which are given below :

(i) Gold

Abulfazl tells of the metal being washed from silver sand in some parts of Northern India, a practice which still survives.[3] Sujan Rai tells of the mining of gold in the Provinces of Shahjehanabad (Delhi), Oudh, Bengal, and from some rivers of the Punjab like the Beas.[4] Chatterman closely follows him and adds Allahabad, Agra and Kashmir to the above list.[5] Gold was used in coinage, ornaments of the seraglio and the public and in some important industries concerning embroidery in Gujrat.[6] One round mohur 11 "mashas bought one tola of gold and of ten "*Ban*" "in Akbar's times".[7]

(ii) Diamonds

The Golkunda mines of diamonds were not included under Akbar's times in the Mughal territory. However these were produced in Bengal, Birgarh (Berar); other precious stones were also produced like rubies and jade in Bengal and Turquoise in Toda Bhim but in the latter case, the expenses of working them exceeded their income.[8]

Writing of Golcunda mines De Laet adds : "In this Kingdom, very rich diamond mines were discovered a few years ago by an accident at the foot of a great mountain not far from the river Chrishena (Krishna), where the land is very rough and barren; they lie about 108 miles from the fort of Musolipatam. The King was in the habit

1. *Bernier's Travel,* Vol. I. p. 202.
2. *Ain,* Abulfazl, Vol. I (Blockman). pp. 19-23, 26-7, 40-42.
3. *Ain II,* Jarrett pp. 132, 285; Vol. III p. 10.
4. *Khulasat,* (Per. MSS.) p. 26 (Oudh); Bengal 30 ; Shahjehanabad 22 ; Beas 49b.
5. *Chhar Gulshan,* Chatterman. Per MSS. Delhi p. 11, Allahabad 27, Agra 29, Kashmir 37, Bengal 39.
   Muntekhab-ut-Tawarikh (Tarikh-i-Badayuni) p. 1100. For Sarkar Kamayun, the author adds ".... Particles of sand after being collected are washed. Out of 3 parts, one belongs to the Government and the other two to washers. On melting the sand half the amount is pure gold."
   Speaking of Kashmir, Chatterman adds: "Qazi Ali keeps 363050 ponnies ..... appointed 11 men. Each ponny carries 3½ maunds. Total cost of metal carried was 12022163 dams.... Asaf Khan fixed 377443 dams income. Gold pieces of one or two tolas were found in the bed of rivers : Posth, Gulab and Woe. Gold dust was also obtained."
6. *Ain II* . Jarrett, p. 247.
7. *Ain I*. Blockman, p. 38.
8. *Ain II* Jarrett, p. 192. (Bengal p. 132; Birgarh p. 238).

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of letting out these mines at an annual hire of 30,00,000 pagodas on condition that all the diamonds found weighing more than ten carats, should be brought to his territory.''[1] In 1628 prohibition was placed on the digging of the mine so that the price of diamonds might not fall as a consequence of over-production. It was also believed that the cessation of working of the mine was due to the demand of high tribute in the form of the costliest diamonds by the King. More than 30,000 workers were employed for digging, transporting the soil in the baskets and baling out water by a slow and laborious method.[2] The method of extraction was not very intricate. Shafts were derived straight downwards to a depth of 12 to 15 fathoms and earth of reddish colour with veins of yellowish or whitish chalk was excavated and collected over a flat surface to a depth of four or five thumbs. After the soil got dried up, it was pulverised with stones, and flints were picked up and thrown away. The remainder was passed through a sieve. Gems were discovered, some times plenty, at others few.

Tavernier mentions diamond mines in Golcunda, Kolar, Soumelpur (Bengal), Wairagari etc. He writes : "Two percent on all purchases of diamonds is paid to the King who receives also a royalty from the merchants for permission to mine.''[3] "At Raolcunda and Kollur, diamonds were weighed by mangelins (1¾ carats or 7 grains)'' But at Soumelpur (Bengal), they weighed by rattis (red seed). One ratti equalled 7/8th of a carat or 3½ grains.''[4] Tavernier himself being a great jeweller, had classified the diamonds into four categories : perfect stones, perfect superior stones, imperfect superior stone, middling and the worst stone. Roalcunda mine was five days' journey from Golcunda mine. Good diamond was found mixed with sandy rocks and resembled Africa's. It was half a finger to full finger in breadth. The rock sand was filled in tubes containing water and crystals separated. Tavernier also refers to the existence of a mill with iron machinery at Golcunda which ran successfully. Tavernier found prosperous merchants doing successful business. Besides the royalty, they paid to the King two pagodas on taking out and four pagodas when they engaged 100 or more merchants a day on the mining operations. The labourers received 3 pagodas a day and compensated themselves by unfair means by hiding small stones under their eye lids. To keep watch over them 12 to 15 labourers were engaged over every batch of fifty one. The finder of a big piece, 14 to 16 carats, got a reward, a saropa of Calicut of 25 sous and half a pagoda of silver, or one pagoda in which case rice or sugar were not awarded. "The bargains were settled with bills of exchange to the Banker, 1½ percent for a month. Bills of Exchange were upon Agra, Bijapur, Golcunda and preferably upon Surat were readily acceptable.''[5]

There was another mine seven days' journey from Golcunda eastwards called Gani or Kolar near a river of the same name. Tavernier makes a reference of a piece of 25 caryots found 100 years back

1. De Laet, *Empire of the Great Mughal*, pp. 75-6.
2. *Ibid.* p. 76.
3. *Travels in India by Tavernier.* Edited by Ball II p. 59.
4. Pant, *Commercial Policy of the Mogul*, pp. 211-212,
5. *Tavernier Travels*, Vol. I. p. 135.

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by a farmer sowing millets which led to the great rush of the miners. He says : "Mirgimola presented a stone weighing 900 carots to Aurangzeb. . . . There were 60,000 persons at work, men, women and children to carry the earth. . . The work-master presented to the labourer rice feast so that they may be true to their labour and be faithful, and every one receives one-fourth pound butter with sugar."[1]

The third mine was in Bengal in the territory of a local prince in Soumelpur near R. Gonel. "Four kos from this mine is Rodas (Rohtas), the strongest fort in Asia."[2]

The account given by Alexander Hamilton who travelled by sea and land casts a reflection upon the state of affairs existing during Aurangzeb's times. Speaking of the custom prevailing in the diamond mines he says : "When a person goes thither on that affair, he chooses a piece of ground, and acquaints one of the King's officers who stays there for that service, that he wants so many covets to dig in, but whether they agree for so much, or if the price be certain, the space of the ground is enclosed and some sentinels placed round it."[3] Diamonds above 60 carots belonged to the king, the defaulters being punished with death. The business itself was so risky that whereas some made fortunes for themelves, others lost both money and the labour spent on excavations. Cases of thefts were punished capitally.[4]

The diamond mines were distributed over the whole of the country from Chotanagpur (Sambalpur) to the south into the present Nizam's dominions. The Golcunda Kingdom (and not only the city and its environs) had the most productive mines. According to Tavernier's description there was nothing approaching to organisation on a large scale. Generally plots of half an acre were marked out and worked with 300 men, women and children. The ports of the West coast carried on the export trade of diamonds. For a long time Goa was noted for the chief diamond mine in the world, afterwards Chaul, Surat and Bombay took its place. "It is not generally known that immediately north of Bihar, in the Sub-Himalayan tract, now lying in the Purnea district there was a region called Gokradesh in the Jehangir's times, which was famous for its diamond mines, but we lose all traces of these Himalayan mines after 1612."[5]

(iii) Salt

Salt was obtained from three sources *viz.* (a) by evaporation from sea water, (b) Sambhar Lake, (c) The Punjab Rock-salt. Bengal was in great need of salt.[6] The Khulasat-ut-Tawarikh and other contemporary works give details of the method of obtaining salt from the Sambhar Lake and the Punjab rock salt mines. Near Sambhar city there existed, as at present, a lake of 4 kos in length and one kos in breadth with extreme salinity. Within the lake there used to be many

1. *Ibid.* pp. 137-8.
2. *Ibid.*
3. *Pinkerton Series,* Vol. VIII : A colony of the East Indies by Capt. Alexander Hamilton (1688-1723) p. 396.
4. *Ibid.*
5. Sarkar, *Studies in Aurangzeb's Reign.* p. 280.
   cf. Moreland, *India at the Death of Akbar,* pp. 151-2.
6. *Ain II.* Jarrett. p. 135.

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tracts of land like the paddy fields. After losening the soil with the spade, they fill it to the brim with water of the lake. In 15 or 16 days, during which time the land absorbs water, all these tracts of land become full of salt. Having dug it with the spade and thrown it upon the banks, they sprinkle water, the earth becomes separated from it and pure salt comes out. "It becomes blue, red or white, several lakhs of rupees worth are annually sold and the Imperial government levies a tax".[1] Long afterwards, Raizada Chatterman, writing in Chhar adds : "The price of salt is settled by heaps. Mostly salt is exchanged for corn by the traders there and any extra quantity demanded is settled on a price by heap (not by weight)."[2]

Speaking of the rock source, Khulasat adds : "Salt is extracted in Doab Sind-Sagar near the town of Shamsabad at the foot of the Salt Range and is called "Lahori Namak" or "Sendori" (after the name of the Sind District of the province of Lahore). The range in Zafar Nama and the Akbar Nama has been called "Koh-i-Juda." The whole range is of salt.[3] Its length is 100 Karoroh (kos). The descendants of the miners lived in parganas Kirchak, Nandua, Mukuala, situated at the bottom of the range. About 200 to 300 labourers dig deep pits, naked from head to foot with a lamp in hand and a hatchet on the shoulders enter the pits of the rocks. They dig three maunds of salt every day, and bring it out on their backs and receive wages from the Nazim. The labourers are adept in the working of mines in darkness. The atmosphere inside the pits "is moderate, neither hot in summers nor cold in winters. There are two holes in Shamsabad where about 2 lakhs maunds are annually extracted."[4] The Government charged customs.

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1. *Khulasat*, Sujan Rai, Per MSS. (S. B. U.) pp. 59, 34; Tr. by Sarkar. p. 59. *Chhar Gulshan*, Raizada Chatterman. Per MSS. (S. B. U.) p. 43. The actual Language is as under:

"*. . . . Nazdik shahr ghadere ast. Tool chahar karoh wa arz yak karoh-pur aab baghait shor- daroon ghadir qita ha zamin ganda az aab aan pur kunad. Bad panzada wa shanzada roz ba aab jazb shawad wa tamam aan zamin namak amez gardad. Khak arad dur karda namak saf bar girand. Annja baqqal har ki ghalla faroshand namak bagirand. Namak har qadre ki khwahad bidahand wa az ambar qimat dahand. . . .*"

2. *Chhar*. Per MSS. p. 43.

3. *Ma-aser-i-Alamgiri*, Mohammad Saqi Masta-id-Khan. Per MSS.
The Namaksar or the Salt Range is a district 20 kos long and belongs to the Sind Sagar Doab between the Bahat and the Indus. People break off the pieces from the rock & carry them to the bank of the river where the price is divided between the miners and the carriers, the former taking $\frac{3}{4}$th and the latter $\frac{1}{4}$th of one rupee for every 17 maunds. Ornaments of salt are also made.'
Ain I. (p. 67 Blockman) mentions price of salt in Akbar's times to be 16 dams per maund.
(See Foot-note in Ain I. (Blockman) p. 525).

4. *Khulasat*, Sujan Rai. (Per MSS. S. B. U.) p. 46.
Eng. Tr. Sarkar pp. 100-101.
Chhargulshan, Chatterman. Per MSS. (S. B. U.) p. 32.
The actual words are :

"*. . . . Annra Lahori wa Sendoori Goind. Mutasil Sind dar daman-i-koh baqui zada and. Ba amiq do sad wa si sad wara kunda namak azan bar aarand wa bajahat bar awurdane namak mazduran sar o tan barhana wa kuland bar dosh wa chiragh dar dast dar naqab ravand. . . .*"
Mirat-i-Aftab Nama. (Per MSS.) p. 336a;
Muntkhab-ut-Tawarikh (do.) p. 1068;
Murtiza Hussain Bilagrami, *Hadiqul-Aqalim*, PT. p. 149.

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Khulasat also mentions the existence of salt mines at Thatta, Oudh and Multan.[1] The artisans of Shamsabad were highly skilled for the manufacture of big salt dishes, candle sticks etc.[2]

Salt being a dire necessity, and its production being limited to only a few centres, the volume of the inland traffic must have been substantial in the period under review. "Measured in terms of food grains a pound of salt was 2¼ times as dear in the vicinity of Akbar's Court as in Northern India in 1914.[3] The average price in the country must have been somewhat higher, and as such its consumption should have been rather limited. The actual cost further south and east was still higher. Speaking of the conditions in Agra, Tavernier maintains that "two mines of copper exchange salt which costs them dear, as it is situated at a distance of four months from Matoucha on the Western Coast towards Bassein."[4]

Salt was duly taxed, but the rates of duty do not appear to be on record, except for the mines of the Punjab, where in Akbar's times, the charges were considerably more than double the prime cost.[5] The sources in Rajputana being under the local rulers, nothing has been said in the Ain about them. Likewise the salt obtained from the Runn of Kutch in Gujrat was locally taxed.[6] Sir Jadunath Sarkar estimates the price of salt under Akbar's times to be one-tenth less of the present times. "Merchants purchased rock salt from the mines at 2·2/5 to 9·3/5 pies a maund. The land-lord charged a royalty of four annas on each porter of salt and the state levied a duty of 11·1/3 pies, nearly an anna on every maund. Thus a little less than 5½ annas per maund on an average was the cost of rock salt under the times of Akbar."[7]

(iv) Saltpetre

"Great stores of salt-petre," says Tavernier, "came from Agra and Patna. . . . the refined costs three times more than the unrefined. . . . Hollanders set up a warehouse 14 leagues from Patna and after refining salt-petre, transport it to Hoogly. One maund costs seven Mahmudis."[8] Earlier in 1605, the King of Spain ordered the Viceroy of Goa to send home 10 or 12 casks of salt-petre yearly until further orders. It may be noted that saltpetre is obtained by washing of the contaminated soil at the Coromondal coast, Gujrat, Agra, Konkon ports and Bihar.[9] Later on Patna became a good centre of Salt-petre which was of two kinds—refined and unrefined as noted above. "Salt-

1. *Khulasat*, Per. MSS. p. 26 (Oudh); 36 (Thatta); 34 (Multan).
2. *Muntkhab-ut-Tawarikh* : (Per. MSS) p. 1068; *Khulasat*, (Per. MSS.) p. 46.
3. Moreland, *India at the Death of Akbar*, p. 153.
4. Tavernier's Travels in Persia and Turkey p. 3.
5. *Massir Alamgir* referred under note 3 of page 120.
6. Moreland, *Akbar to Aurangzeb* : pp. 293-4.
7. Sarkar, *India of Aurangzeb*. LXXVII.
8. *Ibid.*
9. Cf. Moreland : *From Akbar to Aurangzeb*, pp. 118-9.

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petre unrefined cost 8700 lbs. avoir at 1170 Guildars,''[1] and ''refined 4700 lbs., avoir at 2964 Guildars.'' Pelsart describes the industry in detail. It is prepared from three kinds of earth, black, yellow and white, and, that prepared from the first is of the best quality being free from salt or brackishness. Two reservoirs are needed in its manufacture—in the bigger one the earth is flooded with water and duly pulverised, and then after some-time, the water is passed into the other reservoir. By evaporation the substance is obtained and duly filled in jars of the capacity of 25-30 lbs. The impurities sank to the bottom. Then the pots being broken, salt-petre got dried up in the sun. At Agra and in the vicinity of 10 to 40 kos in the surrounding villages it was manufactured and the produce was 5000 to 6000 maunds at Agra alone. As the demand increased due to the large purchases by the Portuguese and the English, its price increased from Rs. 1½/- per maund of 64 lbs., to Rs. 2/- or Rs. 2/8/-with further expectations of rise.[2]

In Shahjehan's times, salt-petre trade developed. It was required for the manufacture of gun-powder, and as such, its trade developed very greatly. Shergarh near Agra, Thatta, Patna, and Ahmedabad were important centres. Upto 1656, the trade was moderate but the establishment of the English and the Dutch factories at Patna gave a great impetus to this trade. The Mughal officials and the king himself attempted to gain indirectly through this trade. William Foster describes the attempts vividly : ''This commoditie hath this yeare cost us much trouble being prohibited transportation by order of the king, upon false information, from this governor against ours and the Dutches proceeds in Masulipattam, but specially theirs. Both had suffered equal discontents, though its lycense first given to us. Some bribes and extra-ordinary expense it hath coxt to work its release, and more wee doubt, it will require to regaine our former freedome for buying that commoditie.''[3] The Mughal King had monopolised this commodity and stocked ten thousand double maunds in Ahmedabad. Once he got refined material full of salt which cost him Rs. 6/14 per maund. ''So long as any of this parcell lies unsold, wee shall not bee suffered to buy in this kingdome, nor gather in what is due unto you from the petermen.''[4]

(v) Other Metals

Coal was not mined in India during the period under discussion, and the production of iron and copper was limited by the quantity of wood available within the reach of the places, where the existence of the ores was known. Silver was mined in small quantities in Agra

1. Dutch Report in 1617 : Invoice of the Naerden from Masulipattam October 1621.
2. Moreland and Geyl, *The Remonstrantie of F. Pelsart* p. 46.
3. *The English Factories in India* (1630-33). W. Foster p. 21.
4. *The English Factories in India* (1646-1660) W. Foster pp. 121, 122.

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province but it was not economical to mine it. There are vague allusions of the metal, being obtained by washing river sands and in the Kamayun hills and Allahabad.[1]

Ain refers to the mines of diamonds, gold, silver, copper, naptha, in the territories between Pegu and Arakan over which there was a contention between the country and the Maghs as well as the tribes of Tipperah.[2] Near Toda Bhim in Agra province mines of copper and Turquoise existed. Copper, lead, iron, gold, rubies, and diamonds existed in the province of Delhi besides orpiment and borax in the Kamayun hills.[3]

Thus we see that the suba of Agra was rich in mineral wealth. Copper was mined at Perath, Singhana, Kotputli; Silver at Perath and iron in Gwalior. At Fatehpur there was a quarry of red stone for building purposes.[4]

Though Bernier adds : "Hindustan is in want of copper,"[5] Tavernier refers to the existence of the mineral near Agra where there were two mines, exchanging copper for salt.[6] Khulasat refers to silver, copper and iron mines in India in vague terms.[7] Copper was also mined in Ajmer, Kamayun, Bengal, Oudh, Delhi provinces. Details of their quality and quantity are not available.[8]

Iron existed in the provinces of Shahjehanabad, Allahabad, Kabul, Golcunda and Bengal.[9] Bronze was obtained in Kabul and exported to India.[10] Lead was found in Allahabad province.

Various types of building stones were also mined. Red stones and sang-i-yalsi were mined in Fatehpur Sikri, marble in Patna and yellow stone in Thatta and Sang-i-Sulemani in Kashmir near village Dakha.[11]

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1. *Ain II* Jarrett, p. 192;
   Moreland, *India at the Death of Akbar* p. 147.
2. *Ain* II. p. 132.
3. *Ibid* p. 285; Ain *Pt. III*. (Sarkar) p. 10.
   Chhar (Per. MSS) p. 11; Khulasat (Per MSS.) p. 7.
4. Pant, *Commercial Policy of theMughals*. p. 91.
5. *Bernier's Travels*, Pt. I. p. 449.
6. *Tavernier's Travels*. p. 3.
7. *Khulasat*, (Per, MSS.) p. 7.
8. *Muntakhab-ut-Tawarikh* : (Per. MSS.) p. 1027;
   Khulasat, (Per. MSS.) pp. Delhi 22, Bengal 30, Oudh 28.
   Chhar, (Per. MSS.): Delhi p. 11, Agra 29, Ajmer 43,
   Kamayun 53b. (Copper was found beneath gold, silver, alum and blue vitriol mines in Agra.)
9. *Ibid* (Khulasat) Delhi p. 22, Allahabad p. 26;
   Chhar (Per. MSS.) Kabul p. 53b; Bengal p. 39;
   De Laet : Iron p. 76.
10. *Chhar* p. 43.
11. *Ibid* pp. 27, 30 (Fatehpur). The actual words are :
"....*Sang-i-Yalsi barai istahkam durust imarat-i-muhan sang ast.*"

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Thus we find that the position with regard to copper was that Northern India depended entirely on the produce of the local mines while the south was furnished mainly by the supplies imported by the Portuguese from Japan.[1]

Prices of Metals Compared

Prices of lead and quick silver were of little interest to the people of India. Except in Bengal, silver was a standard of value. The silver price of gold coins known as new Pagodas rose during our period on the East Coast, and gold market in Gujrat showed a corresponding rise but the data on record are too few to establish or to controvert this proposition "After the famine, in the year 1635, the English 20-shilling piece was sold for 20 Mahmudis, while in 1646 its price was 21½ Mahmudis, and this rise may be significant, but more data are required for a conclusion especially as the gold market was subject to a professional manipulation; the English factors complained on one occasion that they lay at the mercy of the shroffs or exchangers of money who at their pleasure raise and fall the price of either specie as themselves please, and the difference noted may be merely a fluctuation of the market."[2] Further the same authority continues that the circulation of gold in the Mughal empire was so limited that the question of its value did not effect currency users in general. In the south, where gold currency was more in circulation, the question of value of gold did not affect prices. Copper was very expensive in the North "as is shown by the fact that the mint price works out at about 84 lbs. of wheat for a pound of copper, the corresponding figure in 1910-12 being 16 lb. of wheat."[3] The mines of Rajputana and Central India have failed since Akbar's reign and Moreland suggests that the failure of some of them occurred at this particular time, and that the resulting rise in the price of copper made it profitable for the Dutch to establish an important trade into Gujrat."[4]

4. Miscellaneous Products

There are a few miscellaneous products which played an important role in the industrial structure of the country. The important products were opium, tobacco, spices and saffron.

(i) Opium

Opium is manufactured from poppy seeds which requires finest soil for cultivation. The seed is sown in November and harvested in February and March. The preparation of the ground and the subsequent weeding and watering require much attention. The poppy heads are cut out and scratched with a sharp instrument and a milky juice

1. Moreland, *From Akbar to Aurangzeb*, p. 183.
2. *Ibid* p. 182.
3. Moreland, *Akbar to Aurangzeb*, p. 183.
4. *Ibid* p. 185.

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exudes which becomes brown in colour and which after constant exposure to the sun and air is carefully collected by the farmer and his family. The important centres of its production were Patna, Bihar, Malwa, Berar, Ghazipur and Khandesh. The cultivation was extended to Rajputana and many cities and towns in the country, as the Rajputs and the Mughals used to eat it as an intoxicant and used it in medicine. According to the price schedules in the Ain, the price of opium was the lowest in Malwa. Whereas in Agra, Allahabad and Oudh it (Poppy) has been priced at 130 to 160 dams per maund, in Delhi it was priced at 108 at 140 dams per maund and in Malwa 75 dams only per maund.[1] Bernier maintains that poppy was the main product of Bengal.[2] Opium was exported to Pegu (Lower Burma), Java, Malaya Peninsula, China, Persia and Arabia. The Khandesh opium was exported through Surat and the Bihar opium through Bengal.[3] In Akbar's time, Malwa and Benares were the chief centres of production which later developed into Bengal and Bihar. According to Tavernier opium was brought from Brampur, a town of good trade between Agra and Surat. The Hollanders bought in large quantities which they tucked for their pepper. Poppy was more than twice as valuable as wheat. Moreland relying upon the average rates in force in Akbar's times in the Mughal province of Allahabad, Agra and Delhi compares wheat prices with poppy giving comparative values as 100 to 210.[4]

(ii) Tobacco

Tobacco was not grown in India before the times of Akbar. It was introduced into the old world after the discovery of North America, where it was first used as a sheep-wash. It is believed to have reached India through the agency of the Portuguese and was first established in the province of Gujrat, where the leaf was obtainable in 1613, but according to Moreland, the process of manufacture was not understood. But the description given by Asad Beg in his "Wikaya" called "Halalat-i-Asad Beg" rebuts the above suggestion. In Bijapur, the author found some tobacco. He says : "Never having seen the like in India, I bought some with me, and prepared a handsome pipe of jewel work. . . . I had made a silver tube to keep the stem (of tobacco) . . . . On enquiry by the Emperor the Nawab Khan-i-Azam replied: "This is tobacco which is well known in Mecca and Medina and this doctor has bought it as a present for your Majesty. . . . "[5] The same authority adds that the doctor of the Majesty did not allow him to

1. Sarkar, *Studies in Aurangzeb's Reign* p. 275.
   E. H. Nolan, *A History of the British Empire in India and the East* (Div. III);
   Pant, *Commercial Policy of the Mughals*, p. 197.
2. *Bernier's Travels*, Part. I. p. 449.
   Ain II. (Jarrett) pp. 79, 92. (Malwa p. 92, Oudh p. 82; Allahabad 79, Delhi p. 84).
   Khulasat, Malwa p. 32.
3. Sarkar, *Studies in Aurangzeb's Reign*, p. 275.
4. Moreland, *India at the Death of Akbar*, p. 103.
5. *Elliot and Dawson*, Vol. VI. Chap. XLVI. p. 189.

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smoke. But gradually the practice of smoking was introduced. The Muslims being opposed to smoking, the cultivation did not prosper. The Portuguese and the Dutch grew it in their colonies. Jehangir prohibited smoking in 1617 A. D.[1] In the latter part of his reign, and in the reign of Shahjehan no restriction was imposed and tobacco trade developed greatly. Manucci says that in the early years of Aurangzeb's reign the farmer at Delhi paid Rs. 5000 as tax on tobacco alone. It may be an exaggeration but, it certainly speaks of the wide extension of tobacco. It is possible that the trade season must have been limited to only a few weeks.

Mirat mentions that Aurangzeb, by a Farman, in the 6th year of his reign, dated Muharram 22, passed orders for the remissions of all cesses, custom dues on many commodities including tobacco and also the road taxes.[2] Aurangzeb being against intoxicants might have discouraged tobacco also. Burhanpur and Bengal produced large quantities of tobacco. Terry says : "They sow tobacco in abundance but know not how to cure it and make it strong as those in Western India."[3] The crop figured amongst the exports from Surat.[4] "The crop had reached the Coromondal Coast and Methwold writing of his experiences in 1620 recorded exports to Mocha and to Arakan, while some years later, the dried leaf was carried to Bengal and to Pegu."[5]

(iii) Spices

The chief spices were cardamom, ginger, pepper, nutmegs, cloves and cinnamon. The first two were rather important than the rest. Cardamom was grown in Bijapur and ginger in the whole of the dominions of the Mughals. Cardamom was the most excellent of the spices but it was very scarce. It was used by the great nobles and princes in India and Asia and according to Tavernier was priced from 100 to 110 rials.[6] Ginger was brought in great quantities in Ahmedabad. Actual figures of production are not available. Pepper came from the territory of Bijapur, being sold at Reyapur, a little city in that Kingdom.[7] The Hollanders "that purchase it of the Malabaris

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1. *Tuzak-i-Jenhangiri*, Per. MSS. (S. B. U.) p. 378.
   Journal of *U. P. Hist. Sec.* Vol. XIV. Pt. II Dec. 1941.
   Dr. Radha Kamal articles on *Ec. History* 1600-1800 p. 46.
   Elliot and Dawson, Vol. VI. Extract from *Wakiat*, p. 285.
   (Dwazdah sala Jehangiri).
2. *Mirat-i-Anmedi*, Hussain Mohammad Khan. Per. MSS. (S. B. U.) p. 451.
   Alamgirnama, Muhammad Qaswami. Per. MSS. (S. B. U.) p. 437.
3. Foster, *Early Travels in India* 1583-1619. p. 299.
4. Pinkerton, *Early Travels, and Voyages* : Vol. VIII. p. 316.
   (Account of East Indies, Alexander Hamilton 1688-1723).
5. Moreland, *Akbar to Aurangzeb*, p. 81.
6. Travels of Tavernier : Bk. II. p. 129.
   Calendar of the Court Minutes of the E. I. Co., 1635-39.
   E. Bruce Sainsbury. (National Archivos Govt. of India, New Delhi).
   Court Sales. Vol. VI. p. 179.
   Court Book Vol. XIV. p. 217.
7. *Tavernier Travels*, Bk. II. p. 129.

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do not give money for it, but several sort of commodities in exchange as cotton, opium, vermillion and quicksilver and this is the pepper which is brought into Europe.''[1] The small pepper came from Bantum and Assam to Surat and sold for 13 to 14 Mahmudis per maund and exported to Ormuz, Basra and the Red Sea. Hollanders bought great-pepper from Malabar, 500 lbs., in each truck. It was bartered and the gain was cent per cent. The price of cloves and nutmegs sold to Hollanders at Surat was as follows :

A maund of cloves (40 seers to a maund) was sold for 103½ Mahmudis, nutmegs for 56½ Mahmudis.[2] The Ain mentions the following prices of spices reigning in the times of Akbar[3] :—

Cloves	per seer. . . .	60	dams.
Cardamoms	,,	52	,,
Round pepper	,,	17	,,
Long pepper	,,	16	,,
Dry ginger	,,	4	,,
Fresh ginger	,,	2½	,,
Cuminseed	,,	2	,,
Turmeric	,,	10	,,
Coriander	,,	3	,,

Ajwayan (Lingusticum) 70 to 90 dams per maund.[4] The above prices can be compared with those prevailing in 1636 June 1:[5]

Pepper. . . .	11½ and 13½ per pound (pence)
Dust of cloves. . .	2s. 3d., per pound
Stony pepper. . .	5 d., per pound
Epathica	13½ d., per pound.

(iv) Saffron

It was produced only in Kashmir.[6] Ain refers to the cultivation in the following words :

"In the beginning of the months of Urdibahist (March and April) the seeds are put into the ground which has been carefully prepared and soft. . . flower appears in the month of Aban. . . . plant is above a quarter of a yard long. . consists of six petels and 6 stamens. Three of the six petels have a fresh lilac colour. . three yellow colour.''[7] The lilac (red) colour petels yield saffron and some times yellow ones are cunningly mixed up. Before the times of Akbar, forced labour was used and salt was given as wages. A man

1. *Travels of Tavernier*. Bk. II. Chap. II. p. 129.
2. *Ibid* p. 130.
3. *Ain. I*. Blockman. p. 67.
4. *Ibid*. Vol. II. (Jarrett) p. 76.
5. Calendar of the Court Sale, April 24, 1635. (National Archives, New Delhi). p. 179.
   Court Book. Vol. XV. p. 217.
6. *Memories of Jehangir*. *Elliot* Vol. VI. Chap. VI. p. 375.
7. *Ain. I*. Blockman, pp. 89-90.

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cleaning two petels was given two pals of salt. In the times of Ghazi Khan,[1] workmen were given 11 tarks of saffron flowers, out of which one was for wages, and out of the remaining ten, labourers were to give two Akbarshahi seers of clean dry saffron.[2] Akbar abolished this custom of giving wages, and the people felt great relief. The plant yielded flowers for 6 years continuously. During the first two years, the produce was less and from the third year higher yields were obtained. After six years the plants were transplanted to other fields lest they might be rotten. The ground was left fallow for 5 years.

Pampur, south of Srinagar, in the district of Maharaj, was famous for saffron cultivation where it extended for 12 kos. The other place was Paraspur pargana near Indrakol, not far from Kamraj, where the cultivation extended to one kos. Saffron cultivation was on monopoly basis. The revenue was fixed as per the assessment of Qazi Ali at one lakh Kharwars at 24 dams each (One kharwar was equal to 3 maunds and eight seers of Akbar).[3] Speaking of the details of cultivation Abulfazl adds "In the village of Pampur, one of the dependencies of Vihi, there were fields of saffron to the extent of 10 or 12 thousand bighas, a sight that would enchant the most fastidious. . . the ground is prepared with a spade. In a month's time the seed sprout at the close of September."[4] Every year 400 maunds of saffron was produced which meant 3200 Khurasani maunds.[5] The cultivators of saffron were very conservative. They superstitiously believed that the origin of the saffron flowers was from the spring of village Zeewan where there was a reservoir also. Before beginning their operations, they poured cows milk on a point which if sank down was regarded as a good omen for a plentiful crop.[6]

Von Hugel supports Abulfazl when he remarks that saffron was produced in Pampur on the right bank of the Jhelum from three distinct varieties of crocus. The root of one variety yields flower for 15 years, another for 8 years and the third for 5 years. Speaking of the bewitching sight of the saffron fields, Jehangir adds: "Every parterre, every field was as far as the eye could reach covered with flowers .... Half of the produce of the saffron belongs to the Government and the

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1. He was the contemporary of Sherkhan. Vide Abulfazl list of Kashmiri rulers in Vol. II *Ain* (Jarrett). p. 387.
2. One Kashmir Tark is equal to 8 seers of Akbar, is equal to four Kashmiri mans (maunds). One Kashmiri man is equal to 4 Kashmiri seers. One Kashmiri seer is equal to 7½ pals. (Foot Note 3 of page 120 Ain I. Blockman)
3. *Ain I*. Blockman. pp. 370, 452.
4. *Ain II*. (Jarrett). pp. 358-359, 364 (Paraspur).
   Tarikh-i-Badayuni or Muntakhab-ut-Tawarikh, Abdul Qadir Per. MSS. (S. B. U.) p. 1118;
   Khulasat 50a; *Chhar* p. 35;
   Sarkar, *Khulasat*. pp. 113-4 (Eng. Tr.)
5. *Memoirs of Jehangir in Elliot and Dawson* Vol. VI. p. 375.
6. *Ain I* (Jarrett) pp. 358-9.
7. Von Hugel, *Kashmir*. Vol. II p. 273.
   Tuzak Jehangiri, Per. MSS. (S. B. U.) p. 45.
   Elliot and Dawson Vol. VI. 375.

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other half to the cultivators. A seer sells for ten rupees." Jehangir supports wages being paid in salt inspite of Akbar's reform. Salt was imported from Hindustan. . . . To yield an oz. of saffron 4320 flowers were required.[1]

In Malanpur,[2] saffron plantation was grown on planks which according to Badayuni were stolen. In the month of Jeth, saffron is buried under ground and becomes good after one month. The main use of the saffron was in colouring cloth, specially for battle fields as also in flavouring dishes. Due to a high local demand, there was no surplus left for export.

1. *Ibid* (Elliot Vol. VI).
   Muntakhab-ut-Tawarikh. Per. MSS. (S. B. U.) p. 1118.
2. Abdul Qadir writes Malanpur, while Sujan Rai Mianpur and Chattarman Tanpur. All the authorities refer to the vicinity of the village of Pampur as mentioned in the Ain. It appears that the mistake was of the *Katibs* as in Persian script, they were liable to commit. The writers are not well-educated people or it may be quite possible that the MSS. which I happened to read, here in the Saraswati Bhandar might have been copied from work in which erroneous spelling might have been given.

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CHAPTER 7

FINANCE AND ORGANISATION

1. Coinage under the Mughals

A sound currency policy is the measure of success in the development of trade and industry of a country. The Mughals had a good stable currency. The silver Shahrukhies or Dirhams of Babar and Humayun which follow in every respect the Central Asian coinage of the Timuriad princes were obviously struck only as occasions warranted chiefly at Agra, Lahore, Delhi and Kabul. The gold and silver coins, with the "Kalima" or the names of Caliphs on one side and the name of the Emperor on the other were made current. Babar and Humayun's copper coins are anonymous and were minted chiefly at Agra, Delhi, Lahore and Jaunpur.[1]

Shershah, having expelled Humayun in 1540 A. D. proved to be a ruler of great administrative abilities, and initiated reforms in coinage, which were finalised during the times of Akbar. He introduced a new coin of 178 grains of silver called the rupee, and another of copper of 330 grains, and its half, quarter and the sixteenth parts. The number of mints were also increased as a proof of his sovereignty through the territories but this needed a firm and resolute hand. Genuine gold coins of his reign are rare. The rupees were fine and broad, and on the reverse, the style of Humayun was followed. During the years 1552-56 two of his nephews and one cousin-Muhammad Adil, Ibrahim and Sikander contested the throne and struck both copper and silver coins which are rare.[2]

The few coins of Humayun's short reign of six months for the second time show that he had adopted the standards of the Suris though he also coined dirhams. With Akbar's accession in 1556 A.D., begins the Mughal coinage proper. The Ain mentions a long list of 26 gold coins adding, "The custom followed in the imperial mint is to coin Lal-i-Jalalis, Dhans and mans, each coin for the space of a month. The other gold coins are never stamped without special orders."[3] Sananshah was a round coin weighing 101 tolas, 9 mashas and 7 surkhs in value equal to 100 Lal-i-Jalali mohurs. Another coin of the same name weighed 91 tolas and 8 mashas, equal in value to 100 round mohurs at 11 mashas each. The Rahas coin was half of the above two coins and was some times square. The Atma was the fourth part of the Sananshah.[4]

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1. Brown, C. J., *Coins of India*. (Oxford Univ. Press) 1922, VII. p. 89.
2. *Ibid*, p. 91.
3. *Ain I*. Blockman. p. 31.
4. *Ibid*, pp. 28-31. 9 silver coins like rupoiya, jalala etc., and four copper coins like dam, adnola etc., pp. 30-33.

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Abulfazl and Jehangir mention a large number of coins of gold and silver varying from 200 tolas to a few grains in weight. Gigantic pieces were also mentioned by Manucci and Hawkins and others, and Manucci says that they were not current but Shahjehan gave them as presents to the ladies. They were also at times presented to the ambassadors, and appear indeed to have been merely used as a convenient form in which to store valuable treasure. Very few of these pieces have survived but a silver coin of Aurangzeb is reported to be in Dresden which weighs 5½ English pounds, and there is a cast of 200 muhar piece of Shahjehan in the British museum. The rupee of Shershah was the most famous of all the Mughal coins. The standard coin of the Mughals was the Mohur of about 170 to 175 grains, the equivalent of 9 rupees in Abulfazl's time. Jehangir had raised the contents of his gold square mohurs to 204 and later to 212·5 grains. In weight and fineness this coin was famous throughout the periods. The smaller coins consisted of half, quarter mohurs besides smaller pieces.[1]

In addition to the gold and silver currency, special pieces were occasionally struck, the commonest of these were the Nisar of Jehangir, Shahjehan and Aurangzeb. Other coins of Jehangir were called Nur-Afshan and Khair Kabul. Jehangir struck coins in the name of Nur-jehan. In the 6th year of his reign, he struck a famous gold mohur of new type with the face of the emperor in the act of raising the wine cup to his lips on one side and the sun in the constellation of Leo on the other.[2] Speaking in his Tuzak, Jehangir himself says : "To each (gold coin) I gave a separate name *viz.*, to the mohur of 100 tolas, that of Nur-shahi; that of 50 tola Nur-Sultan; to that of 20 tola Nur Daulat; to that of 10 tola Nur-Karam; to that of 5 tola Nur-Mihar; to that of one tola Nur-jehani, The half of this I called Nurani and the quarter-Kawagi." Speaking of silver coins he continues : "I gave to the coin of 100 tolas the name of Kaukab-i-tali (star of desire); to that of 50 tolas the name of Kaukab-i-Iqbal (star of fortune); to that of 20 tolas the name of Kaukab-i-murad (star of wish); to that of ten tolas the name of Kaukab-i-Bakht (star of good luck); to that of 5 tolas, the name of Kaukab-Saad (star of auspiciousness); to that of one tola, the name of Jehangiri."[3] Half Jehangiri was called Sultani and the quarter Nisari (Showing money). The copper coins were called the dime, Kair-i-Iqbal (acceptable). On the gold mohurs from 100 to 10 tolas the following verse was impressed :

"*Ba khat te nur bar zar kilk-i-taqdir, Raqam zad shah Nur-ud-Din Jehangir.*"

"Fate's pen wrote on the coin in letters of light,
The Shah Nuruddin Jehangir."

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1. Brown C. J. : *Coins of India* pp. 91-3, 192.
2. Holden E. S. : *The Mughal Emperors of Hindustan* p. 232.
3. *Tuzak-i-Jehangiri* : Per. MSS. (S. B. U.) Vol. I. p. 5.
   Eng. Tr. *by Rodgers and Beveridge* Vol. I. pp. 10, 11.

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Between the above lines the "Kalima" was impressed. On the other side of the above coins the following couplet with date of coinage was impressed :

"Shud chun khur zin sikka noorani jahan, "Aftabi Mamlakat tarikh-i-aan."

"Through this coin in the world, brightened by the sun, And the date thereof is "the sun of dominions."

(Aftab-i-Mamlakat)[1]

Pelsart however gives a graphic description of the Jehangir coins in the following words : "The coins used are rupees, but there are different kinds *viz.*, Khazana or Akbar's old coins; and Chalani (current) which were the rupees struck during the reign of Jehangir, in Agra, Lahore, Patna, Qandhar or Gujrat. The shroffs value the Chalani at 1 to 2 percent above the Khazana all bargains are done in terms of the same series of the coins either Akbari or Jehangiri. . ."[2] The same authority refers to the currency of Mahmudis prior to these coins; the Mahmudi was smaller than the rupee coin, worth only 10 stivers whereas the rupee contained 24 stivers.[3] Edward Terry writing about 1616-1619 speaks of the fineness of the coins which contained no alloy. Brass coinage for small change was also current, there being 4 pice in a penny. These contained more brass than their face value in terms of silver. The rate of exchange of some of the important coins[4] is given below :

Name	Metal	Where used	Value in Rs.
Guilder or Florin	Moneyof account	Dutch records.	5/6th rupee
Rial of Eight	Silver	Spanish, throughout East.	Rs. 2/-
Pagoda new	Gold	S. India and E. Coast.	Rs. 3/- to 3½/-
Pagoda, old	Gold	Do	Rs. 4/- to 5/-
Fanam	Gold	Do	Variable.
Pound Sterling	Gold	Throughout India	Rs. 10/-

Few of Shahjehan's coins were of any artistic merit. The same style of Jehangir's coins was used.[5] Shahjehan introduced mint reforms and the conditions of minting in Surat and Ahmedabad were standardised. De Laet gives the details of coins there current. The following coins have been mentioned :[6]

Gold coins

Mohur equivalent to 32 shillings.

Rose Nobles	do	6	do	8d.
Old Jacobuses	do	25	do	8d.
Albertuses	do	4	do	6d.

1. *Ibid.*,
2. Pelsart, Remonstrantie of : Tr. Moreland & Geyl. p. 29.
3. *Ibid.*, p. 42.
4. Thomas. E, Rev., *Resources of Mughal Empire* p. 26. Moreland : *Akbar to Aurangzeb.* Appendix. D. p. 330.
5. Brown C. J. p. 96; De Laet : Chap. VI. p. 104.
6. *Ibid*, Pant, *Com. Policy.* p. 188.

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Silver Coins

Rupee	Equivalent to 4 shillings and 6d. (½, ¼, 1/8th 1/16th also).			
Rix dalers	do	4	do	7d.
Spanish Reels	do	4	do	10d.
Rial of Eight	do	4	do	6d.
Ecu	do	4	do	6d.
Mahmudi	do	4	do	11d.

Copper Coins

The Main coins were a paisa, half paisa, two pice and four paisas. One paisa was equivalent to 35 to 50 badams (bitter Persian almonds) or equivalent to 80 kauries (shell) on the sea-side or 50 in Agra. That Ahmedabad enjoyed better mint advantages than Surat is clear from the suggestion of the factors at Surat to shift the factory to Ahmedabad on grounds of favourable rate of exchange that Ahmedabad enjoyed. The mint in Ahmedabad used to charge 2% more than Surat. The brassage was higher.[1] Ahmedabad used to manufacture costly commodities for Agra and thus accounts used to be adjusted without any money actually passing but this was not the case with Surat, and thus Ahmedabad enjoyed favourable rates of exchanges as it was always to receive more than required to make payments. The batta between Mahmudi and the rupee was 13 to 14 percent in 1630, 6 percent in 1633, and dropped to nothing in 1634. The high rate of discount was due to the famine of 1630. The banjaras carrying food stuffs from Agra to Gujrat accepted only rupees and not the Mahmudis which were current only in the vicinity of Baroda. The rial was much preferred as it appreciated a shilling, and contained pure metal, there being no loss by minting. Gold was better than rials or bullion silver.

Aurangzeb raised the fineness of his coins. In 1659 A.D., the Factors wrote : "the new king Oran Zeeb hath raised his coyne to 5/8% finer than formerly...."[2] There was an annual coinage of rupees and the few rupees circulated at a premium of a paisa more than that of the foregoing year.

"Coins of special interest and rarity," says Brown, are those struck by pretenders, particularly the rupees of Dawarbaksh of Lahore, A.H., 1030, the coins of Shah Shuja 1068, of Bidar Bakht 1202-3 and the rupees of Jahangirnagar struck by Azimu-sh-shan in 1124."[3]

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1. W. Foster, *English Factories in India* (1634-36) p. 218.
'Commonly so much will be saved (so much) by the loss of exchange between Surat and this place (Ahmedabad), which is generally 1½, 1¼ and 2%."
Pant, *Commercial Policy of the Mughals* : p. 188.
2. W. Foster : *Ibid.* p. 225, English Factories (1635-60) p. 211.
3. Brown, C. J., *Coins of India*. Chap. VI. p. 97.

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During the latter part of Aurangzeb's reign, the coins of Bijapur and Golcunda circulated freely. One might see "Laris" (a silver coin made of wire) doubled somewhat like a hair pin, with inscriptions stamped on the prongs and worth one shilling, circulating in the Persian Gulf and Western India, and also the old and new Pagodas and half pagodas, fanams and others circulating freely on the West and the East coasts and in the South. Though there was no difference between the old and the new pagodas, the old pagoda circulated at 4½ rupees while the new at 3½ rupees, simply because of superstition of favour of old things. Speaking of the currency, Thevenot adds : "It is to be observed that the silver money of Great Moghal is finer than any other, for, whenever a stranger enters the Empire, he is made to change the silver he hath, whether Piastres or Abbasis, into the money of the country, and at the same time they are melted down, and the silver refined for coyning of roupies."[1]

3. Equivalent of Coins

The elaborate system of coinage operating over vast territories needed a master hand to control it. Considering the coinage under the Mughals as the output of a single dynasty, which maintained the high standard and purity of its gold and silver for three centuries, considering also its variety, the number of its mints, the artistic merits of some of its series, the influence exerted on contemporary and subsequent coinages, and the importance of its standard coin, the rupee, in the commerce of today, the currency in the words of Brown "surely deserves to rank as one of the great coinages of the world."[2]

Though every ruler attempted to make his coin legal tender superseding all previous ones and endow it general acceptability, it can hardly be believed that there was ever a time under the Mughals when certain coins only were standard throughout the empire, and that they could be used as measure of value in the modern sense of the term. Coins did not pass as a matter of course in transacting business, weighing and assaying were necessary elements for settling transaction and the value of a particular type of coin must have been a matter of negotiation. Foreign coins were accepted at their intrinsic value, and as such the newer ones were better accepted as they suffered less of wear and tear. Old Indian coins and the current ones were accepted on similar terms. Thus coins; were not regarded as standard coins; they were treated as merchandise" of which the equivalent in other commodities depended upon the weight and the quantity of the coins tendered. A merchant who offered payment in money was in fact entering on a particular kind of barter,[3] (the money being accepted as the amount of metal).

1. Lovell, *The Travels of of Monsiur de Thevenot*. Pt. III. p. 18.
2. Brown, C. J., *Coins of India* p. 99.
3. Moreland, *India at the Death of Akbar* p. 59.

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It is by no means easy to ascertain the intrinsic value of the coins and monies of account used at different periods of history. The usual tendency in all countries, except under very enlightened governments, is for the value of the current coin to become less and less, partly by waste from wear and tear, but chiefly from the debasement in the coin itself from ill-judged financial operations affecting the mint, and diminishing the intrinsic value by preserving the denomination of the currency. "The early Muhammedan Kings, as Mr. Elphinston observes, "used the *'dinar'*, and the dirham like the Khaliffs, that the coins were succeeded in India by tankas, divided into jitals or dams, equal to about the paisa and that Shershah changed the name of tanka to that of rupea or the rupee, which was adopted by Akbar in his coinage".[1]

At the time when Babar entered India, the state of circulating medium is not exactly known nor Babar refers to the denomination of the Indian coin by which he reckons, that being fixed and known by universal usage. The silver tanka in the reign of Sultan Allauddin Khiljee was one tola and was equal to 50 jitals or paisas.[2] It was very nearly equal to Akbar's rupee or two shillings. In this reign the tanka was so much debased that it cost only 16 jitals *i.e.*, less than one-third of the proper standard. Farishta detailing the circumstances detailed in the text states that Babar gave Humayun Rs.350,000/.[3] The sum being issued from the treasury being 70,00,000 of some coins of denomination of money. This would mean that the money of account of Babar was equal to 2 dams only or a double dam. Supposing Farishta to reckon by Akbar's rupee of 40 dams, as seems probable, the value of donation to Humayun would thus be about £35,000 sterling.[4] Mirza Haidar tells us that his allowance in the high situation which he filled at Lahore was 15 lakhs but was afterwards increased to 50 lakhs of rupees, and adds that one lakh of Hindustan was equal to 20,000 Shahrukhis.[5] This was in Humayun's reign when Kamran retook Qandhar in A. H. 944. Now at this rate the Shahrukhi is equal to 5 pieces of the money of account of the time. The value of the Shahrukhi which was not coined afresh must have remained stationary. Abulfazl tells us that 8 lakhs of Shahrukhis were equal to one crore 28 lakhs of dams so that eight Shahrukhis represented 128 dams and one Shahrukhi 16 dams. Thus we have the Shahrukhi represented by Mirza Haidar as equal to 5 pieces of money of account and by Abulfazl as equal to 16 of that money, and the Shahrukhi being the same, the money of account in Babar's time is rather more than three times more valuable than that of the times of Akbar.

1. Elphinston, *History of India*. pp. 490-1.
2. Briggs, *Farishta* Vol. I. p. 360; (Per Text p. 114).
3. *Ibid.*, Vol. II. p. 48.
4. Erskine, *History of India* Vol. I (Babar & Humayun). Brown Green and Longman. Lond. (1854). p. 541 (Appendix.)
5. *Tarikh-i-Rashidi*, Per Text p. 365.

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According to Akbarnama, the Lal-Jalali of full weight and perfect touch was of the value of 400 dams. The Chhar-Gosha (four-cornered rupee) was worth 40 dams. The ordinary dasturi Asharfi and the Akbarshahi rupee which had become deteriorated in use were to be taken at the following rates :

If the Asharfi was 2 grains of rice deficient, it was deemed to be of full value and to be received at 360 dams. If it was deficient from one grain to one surkh, it was to be reckoned at 355 dams; the rupee not more than one surkh deficient was to be considered as of full value and worth 39 dams. If deficient by 1½ to 2 surkhs, it was worth 38 dams. The Lal-i-Jalali of proper touch and just weight, the jalala rupee not more than 1½ to 2 surkhs deficient, old rupees of the Akabarshahi coinage deficient from 3 to one surkh, were to be received at the treasury; those of greater deficiency were to be tested by the cashier separately. Every office used to submit the account to the Government Office concerned. The same system was followed by the shroffs and the Jagirdars.[1]

4. Coins and Price Level

Currency structure affects price levels but in the words of Lanka Sundaram "to speak of the currency system of the times of the Mughals amounts to misnomer".[2] The minting of coins under the Mughals was not confined to the capital town alone. In the times of Akbar there were four mints for the coinage of gold, silver and copper and 28 mints for copper alone.[3] Nisar which etymologically means 'the act of scattering' or the 'thing scattered' meant a small coin,[4] distributed at weddings. It is one of common words to be met in the Mughal chronicles reminding us of one of the Asiatic customs of antiquity, where a profuse distribution of largesse was made either in the form of coins or of precious stones waved round the head of the emperor or some other principal dignitary of the state. As this too acted as a coin, it must have affected the quantity under circulation. Unlike the present day Government of India, the Mughal sovereigns never reserved to themselves the minting of coins on their account. It was then a free or gratuitous coinage. The Ain gives elaborate accounts indicating a profit which one could derive by taking bullion to the mint for coinage.[5] The fineness in Akabar's times is spoken of as bannies, ten annies fine being the standard gold, just as the standard gold at the present time is 11/12th, fine. One Masha was taken for every round mohur weighing 11 mashas. 'The coins were noted for their fineness. Edmund Terry says : The coin there is more pure than in any part of the world, being of pure silver without alloy.'' Herbert says : "that the Mahmudis and

1. *Akbar Nama*, Abulfazl II. Per Text p. 104 ; *Elliot* Vol. VI. p. 64.
2. Lanka Sundaram : Mughal Adminstration. p. 75.
3. *Ain. I.* (Blockman) p. 32.
4. Hodivala, *Historical Studies in the Mughal Numismatics* 176.
5. *Ain. I.* (Blockman). pp. 38-39.

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the rupees were of pure silver.'' Mundy says, "The current coin is of good gold, silver and copper". The evidence adds: "The silver money of the Great Mughal is finer than any other." Fryer is of the same opinion. Ovington remarks that "the gold of Surat is so very fine that 12 or 14 percent may often be gained by bringing it to Europe."[1] The coins of the day were hammered and not milled, and as such, it was easy for people to manufacture spurious coins in order to gain by unfair means. At the decline of the Empire, many such spurious coins must have flooded the markets. The Greshams Law which maintains that "bad money drives away good money" must have had its effect.

India at that time had a bimetallic system *i.e.* the coins of gold and silver were both legal tender for unlimited amount. "The absence of a system in the general currencies of the times occasions frequent fluctuations in the ratio between the values of gold and silver"[2] as the Government could not maintain any one standard, at the ratio between the two metals.

In the days of Akbar, when Ain-i-Akbari was being compiled, the ratio in the value of gold to that of silver stood at 9.4 to 1; under Jehangir it was 12 to 1; during the reign of Shahjehan it was 14 to $1\frac{3}{4}$, and the highest watermark in the depreciation of the silver was reached in the reign of Aurangzeb when the ratio approximated 16 : 1[3] This state of affairs was directly amenable to the increased output of silver during the 16th and 17th centuries (1545-1680) which seriously affected the prosperity of India through the medium of the Portuguese and other merchants, and which ultimately saw the adoption of a silver currency for the Empire in the reign of Aurangzeb. 'Gold coin disappeared (due to the operation of the Gresham's Law) from general circulation and was to be seen in the houses of the principal dignitaries of the state, who could afford to manage huge transactions, while the ordinary peasant and the artisans thought it lucrative either to melt the gold coin into bullion or to hoard it up, and this has been the actual observation of more than one traveller hailing from foreign country into India."[4] Hence to think of a bimetallistic standard at a period when there were no statisticians or economists is merely a misnomer.

In the times of Aurangzeb, there were large fluctuations in the prices of silver and gold. In the Surat gold-market the shroffs wielded a great influence. The English factors were greatly-perplexed by their professional manipulation and complained that some times the rate of gold or at another, the price of silver was raised to suit their own ends at their pleasure. Dr. Radha Kamal Mookerjee quotes Roe and Terry giving the following prices of rupees; (1675-1680) 2s.9d.; 2s.6d; 2s.3d; 2s; Tom Caryot reckons the rupee as equivalent

1. Hodivala, *Historical Studies etc.* pp. 240-4.
2. Lanka Sundaram, *Mughal Administration* p. 81.
3. Hodivala, *Historical Studies etc.* pp. 248-51.
4. Lanka Sundaram : p. 82.

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to 2 shillings in 1616; Sir Thomas Herbert (1628), Thomas Mundy (1689) reckon the rupee as equivalent to 2s. 3d; De Laet 2s. to 2s. 9d."[1] Much later Manucci records the rate of 2 shillings as current. "Silver rises and falls" observes John Kenn in 1661, generally according to the batta on sicca rupees," and at the end of the 17th century the current coin was silver rupee or gold mohur, the latter being not commonly in use.[2] The depreciation in the price of silver was unfavourable to the lower classes in the country. In Western India, the Mahmudi declined from 32 to 31 pice as recorded by Finch in 1609, and 34 pice to 20 pice in 1614, the Mahmudi as recorded by English factors at Surat, or the rupee in Northern India from 40 to 30 dams and from 102 to 53 pice in Aurangzeb's reign. In Mughal India any merchant could bring any metal, either gold or silver or copper to the mints, and get money coined after paying a seigniorage of about 5 percent and the actual brassage, the profit being divided according to the scheduled rates between the merchant and the State.[3] The silver rupee continued to be the standard coin and legal tender. The Mughal administration did not attempt to maintain a fixed ratio between gold and silver or between silver and copper. Then copper was not the token coin like the present times. Thus silver and copper were permitted to find their market ratios, causing disturbance to the course of trade and prices and economic relations in general. The depreciation in the value of silver coin or appreciation in the value of copper from 103 to 53 pice per rupee from Akbar's to Aurangzeb's times promoted a brisk trade in the money-changing; the merchants purchasing copper in the cheaper markets and selling where it was dear in the Country. With the relative depreciation in the value of silver in terms of copper, the real burden of the revenue demand which was fixed in dam, but actually paid in silver, also considerably increased.[4] The appreciation of the copper dam was equivalent to a general fall of the prices of agricultural produce, and a diminution of the agricultural income measured in terms of dams, while the revenue demand fixed in dam was not to change. Thus the peasantry had to part with a large share of the produce not only to meet the state demand but also to pay the interest to their creditors. The bulk of the population thus suffered severely. The Mughals granted Jagirs to many of their civil and military officers. This resulted in the greater exploitation of the farmers as they had to pay a much greater share of their produce to maintain them in the old standard, (the prices of the produce having fallen). Manucci records that the state (during Aurangzeb's reign) maintained the old rate of 40 dams to the rupee for conversion of salaries. Mr. Hodivala maintains that the dam of Aurangzeb weighed

1. J. R. A. S. July 1887 p. 497i
   Journal of U. P. Historicl Society No. XIV. Pt. II. Dec. 1941. Article by Dr. Radhakamal Mookorjee : Ec. Hist. 1600-1800 pp. 69-70.
2. *Ibid.* Travels of Tavernier. (1641-67) p. 5.
3. U. P. Journal No. XIV. Pt. 2, p. 75.
4. U. P. Journal of Hist. Soc. No. XIV. Pt. 2, p. 76.

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from 109 grains to 215 grains as compared with Akbar's dam of 320 grains. The merchants of Ahmedabad had black coins of copper. The subedar of the province coined light copper coins which afterwards had the sanction of the Emperor. The weight of the dam was fixed at 14 mashas instead of 20.7/8 mashas of Akbar's dams.[1]

The scarcity of copper led to the reduction of the weight of dam and this shows that Aurangzeb attempted to face the situation by passing a decree that rupees whose intrinsic value was less than eight annas should pass for full weight.[2] The weight of the copper coin was also for the same reason reduced.

5. Banking System

There was no organised system of Banking under the Mughals. From Akbar to Shahjehan, all the emperors were traders themselves in some degree. With the exception of Aurangzeb who was a staunch Muhammedan, they were great financiers. They granted big loans to whomsoever they pleased. In the provinces financial advances were made through the provincial Governors. As Aurangzeb did not like to take interest, it being forbidden by the Islamic law, banking business received a great set-back during his reign. As the Mughal Emperor did not like to dabble in small loans, the gap was filled by the private financiers called the shroffs. The banking houses were called Kothies. The State permitted lending business on three conditions : (1) That there would be no competition with the State; (2) that the Emperor would always be consulted along with his officials, if they wanted to introduce any new business; (3) and that the rates fixed by the King would be adhered to, and that the King's rate would determine the market tone. These agencies carried on money banking business exchanging coins, old for new at a certain amount of discount and the issuing and discounting of Hundies. Speaking of the indigenous banking in the country, Dr. Vera Anstey rightly observes : "Very many centuries ago the native bankers or 'shroffs' conducted financial operations on a comparatively large scale in the chief commerical centres..... They conducted large transactions at the chief commerical centres and at the court of the native rulers..... Their credit stood so high that their hundies were readily negotiable throughout the country and often beyond the bounds of India."[3] For depositing money, they charged a certain rate of interest from the depositor for safe custody. The banking businesses called Kothies transacted their business by employing shroffs who worked under the guidance of munims (agents of the financiers). The village money-lender who exists to the present day must have exercised a good hold during the period under review.

1. Hodiwala, *The Weights of Aurangzeb's Dams*. J. A.S. B. Numismatic Supplement No. XXVIII 1947.
3. *U. P. Journal of Hist.* Soc. No. XIV. Pt. II. p. 76.
3. Vera Anstey, Chap. XV pp. 403-4
Imperial Gazeteer of India Vol. IV. p. 532.

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If a business firm had branches in several centres, the Branches of kothies were also opened. With the development and improvement of indigo trade, neel kothies or better known as 'Neel' were established at all big centres[1] like Agra, Sarkhej, Biana, Ahmedabad etc. Along with banking business some other business was also combined. The failure of Kothies was announced by a red flag. At the end of Akbar's reign there were one or two powerful Kothies which had flourishing business but due to competition many successful ventures were ruined.[2]

The development of Banking in the times of Jehangir was due to the genius of Veerjee Vora of Surat, Malaya of Coromondal coast, and Chetty of Malabar who controlled successful business. Veerjee Vora was a wealthy merchant of Surat with whom the English had dealings since 1619. He was the company's largest creditor in Surat and employed agents in Burhanpur, Ahmedabad and Agra etc. In 1643, the Court of Committees sent an iron-chest from Nuremburg, as a present to Veerjee. As late as 1667, Thevenot wrote : "These are people vastly rich in Surat; a bania, a friend of mine, called Veerjee Vora, is reckoned to be worth atleast 8 millions sterling."[3] In Jehangir's times some of the restrictions were loosened with the result that the number of kothies increased and the business of assurance became very common and war-risks were frequently dealt in. Maritime trade was well-established. We learn from Nathaniel Halsteadal's letter dated 24-7-1622 from Cambay to Surat Factory that to assure our goods "hence to Swalley in our own names itt bee difficult....."[4]

6. Insurance and Bills

The English merchants have paid tribute to the genius of Veerjee Vora's business. "The potency of Veerjee Vora (who hath beene the usuall merchant, and is become now the sole monopolist of all European commodities) is observed to bear such sway amongst the inferior merchants of this town that, when they would often tymes buy and give greater-prices, they are still restrayened not dareing to betray their intents to his knowledge and their owne sufference in so much that the tyme and price is still in his will and at his own disposure."[5]

Tavernier speaks of Hundees met at Surat at two months after date by paying a high rate of exchange. "At Lahore" he adds, "On Surat the exchange goes up to 6¼ percent; at Ahmedabad at 1 to 1½

1. Pant, *Commercial Policy of the Mughals* p. 73.
2. *Ibid.*
3. *Travels of Potermundy* : (1608-67) Vol. II. p. 139 (Footnote). (Hakluyt Society).
4. William Foster, *The English Factories in India* (1622-33) p. 101. "Business was transacted at 2 or 2½ percent.
5. William Foster, *English Factories in India* (1634-36) p. 24.

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percent, at Sironj 3 percent; at Burhanpur 2½ to 3 percent, at Dacca 10 percent; at Patna 7 to 8%, at Benares 6%. At these three last places (*i.e.*, Dacca, Patna, Benares), they give only letters of exchange on Agra, and at Agra they give others on Surat, the whole amounting to only the sum stated. At Golcunda 4 to 5 percent; on Goa the same at Deccan 3 percent, at Bijapur 3 percent, at Daultabad 1 to 1½ percent."[1] The business was risky. If the goods were stolen in the way, the money was lost to the financiers.[2]

As the question of insurance against risks was also bound up with the rates of discounting the Hundies (Bills of Exchange), it appears that the discount rates for Mocha and Basra were higher and ranged from 22 to 24 percent and from 16 to 20% for Hormuz. The general tendency was to draw bills at 40 or 41 days, after sight and the exchange for home-trade was 1½ to 2 in favour of Agra. The Hundies were not Darshani (at sight). They were jokhami (risk-covering). In Masulipattam, however bills of exchanges were not dabbled into and so money used to be brought from Golcunda to be paid for the imports. The Cheapest way was to insure it at 5 percent.[3] This was an example of overland insurance. Another instance humorously called "Andrew's Cochineal" which was sent at urgent request from Surat to Agra, insured at 2½% "Exchange from Surat to Agra in 1658 went up from 9 to 11 percent. The Dutch paid from 5¾ to 6¾ percent."[4] This might have been brought about by unsettled conditions due to fight for throne that ensued in the latter part of Shahjehan's reign.

The bankers and money changers at Calicut have been described by Varthema and the same description holds good at the present times. Accurate fine weights were used and the transactions were settled by signs made through the joints of fingers hidden under a piece of cloth. Offer and acceptance were thus complete through brokers.[5] Even though the currency was of pure metal, it had to bear the brunt of fluctuations in its current value. O'gilby refers to the fluctuations of money which effected exchange which resulted in trade of money exchanges. The banias (dealers in money) bought all the gold and silver upon the coming of English, Dutch or other European ships and Moors' vessels from Aden and Persia "when commonly they are at the lowest and afterwards raise the money when any quantity is to be sent to up-country".[6]

7. Weights and Measures

It cannot be denied that in every period of Indian history there was always some system of weights and measures, though of course these differed in different parts of the country and for various commo-

1. *Travels in India*, Tavernier Vol. I. p. 36.
2. *Ibid.* p. 37.
3. W. Foster, *English Factories*. (1637-41) p. 84.
4. Pant, *Commercial Policy of the Mughals*. p. 192.
5. *The Travels of Ludivico Di Verthema* by Jones & Badger pp. 160-70.
6. John Ogilby, *Asia*. Vol. I. p. 164.

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dities. So far as the Mughal period is concerned we find allusions in History right from Babar's times that an anxiety was dominant in all rulers to standardise the weights and measures. Babar was the first prince who ordered his marches to be regularly measured, as well as his journeys and hunting excursions which must have tended to improve the geography of the country then very imperfectly surveyed. He also established service post houses at a distance of about 16 miles from the other and stationed relay of 6 horses from Agra to Kabul and proper officers for each.[1] "He made a statute concerning the measurement of the distances which has hitherto been in force. He made 100 tanabs equal to 40 yards."[2] Later on, Shershah effected reformation in weights and measures in the country which he brought to a fixed standard. Before his time, use of scale was unknown. All commodities were sold by guess. Measures were of an uncertain character such as that of a hand or elbow length were alone in use." In consequence of these regulations mercantile operations were conducted with greater facility and more advantageously, and merchants from all quarters flocked to indies."[4]

Akbar and his advisers fixed the units of measurements as the necessary preliminary to survey, as also weights, for different purposes. The Ain refers to all these measures in detail. "Measurements," says Smith, 'had been formerly made by a hempen rope which contracted or lengthened according to the amount of moisture in the air. From A. D. 1875, the rope was replaced by a jarib of bamboos joined by iron rings which remained of constant length."[5]

The unit of length in North India was the "Gaz". The Ain gives a history of the gaz (yard). The Illahi gaz was a measure of length and a standard gauge. In India three measures were current-long, middling and short, each being divided into 24 parts, each part called Tassuj. The gaz was used for the measurement of cultivated land, roads, distances, forests, reservoirs, etc., the middling for the building of stone, wood, bamboo-built houses, places of worship. The short gaz was used for arms, cloth, beds, seats of state, sedan chairs and the like. "Some make 4 Tassuj equal to one dang and 6 dang equal to one gaz."[5] The divisions of gaz were 'fingers breadth,' barley, corn, girah etc. Though Smith is not sure of the actual length of the gaz (Illahi), on which the area of the bigha depended, and believing it to be near about 33 inches, Moreland, according to the date given by Abulfazl, computes it to be 31 inches adding: "(the gaz) appears to be more than one inch longer." Moreland further con-

1. Babar's Memoirs (Tuzak-i-Babri) Per Text. pp. 393-4.
   Tarikh-i-Farishta : Per Text. p. 198.
   Alexander Dow :*History of Hindustan*.(Eng. Tr. Farishta)
   John Murray (London) Vol. I p. 240.
   Erskine: *History of India: Babar &Humayun*. (Longman Brown 1854) Book III. Chap. II. p. 530.
2. *Ibid.*, Alexander Dow p. 240.
3. Father Catrou, *History of Mughal Dynasty in India* p. 65.
4. Smith V. A., *Akbar the Great Mughal* Chap. XIII p. 373. *Ain II*. (Jarrett) pp. 64-67 Ains 8 to 10.
5. *Ibid.*, *Ain. II* p. 64 (Ain VIII).

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cludes that Jehangir in keeping with similar increases in the weight of the maund and the value of the rupee, increased the length of the gaz by 20 percent. In 1620 at Patna the gaz measured 40 inches. Shahjehan in about 1646 reduced the length to confirm to Lahore standard, but in 1647 the Agra gaz was only of 32 inches.[1] The tanab or jarib (chain) was 60 gaz and the bigha or the unit of superficial measure was 60 gaz square or 3600 square yards. The twentieth part of the bigha was called biswah. According to another system the twentieth part of the bigha was called taswansah; and one twentieth part of this was called tapwansah.[2] The Portuguese on the West coast applied civado. In Gujrat it was a yard. In Sindh 47 covads made 20¾ covads in Gujrat; and as such covad was nearly 32½ inches long or it was another name for the Illahi gaz. This measure was used for cloth. The measures for practical importance are thus :

On the East coast.... Hasth or covad of about 18 inches
In Gujrat.... Covad about 27 inches.
In Sindh.... Covad equalled 32 inches
In North India Gaz : (Illahi 32 inches); Jehangiri yds. 40; but it did not last long...[3]
Akbar's Kos was 5000 yards in length.[4]

Weights

The principal maunds current in India were as follows : under the period in review :[5]

Name	Approximate weight in Pounds Avoir dupois	Dutch	Wt. of Ser in dams.	Current	Period
Akbari	55	55	30	No. India..	Upto 1616
Jehangiri	66	60	36	do	1620-1636 Bengal 1642
Shahjehani (Double maunds)	74	67 68	40	do	From 1634
Gujrat old	33	30 30¼	18	Gujrat	1634 to 1635
Gujrat New	37	34¼	20	do	From 1635--36
Southern	26 plus 1 minus 1	24 plus 1 minus 1	..	S. India & E. Coast.	(Throughout our period)

1. Smith, V. A., *Akbar the Great Mughal* p. 373; Moreland, *Akbar to Aurangzeb*. Appendix D. p. 337.
2. Ain II (Jarrett) pp. 67-8. Moreland, *Akbar to Aurangzeb* p. 338.
3. Smith, V. A., *Akbar the Great Mughal* p. 373 Moreland, *Akbar to Aurangzeb* p. 837.
4. *Ain II* (Jarrett) p. 417.
5. Moreland, *Akbar to Aurangzeb* p. 336.

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"In the 16th century, as in the twentieth" observed Moreland, "the leading characteristic of the Indian systems of weights and measures is diversity. . . old local standards existing side by side with those which had been officiallly prescribed. scales are more uniform than ....the units.[1] For instance the maund contained 40 seers. But the weight of the maund and the diversity of the seervaried from place to place. At the sea ports the diversity was more noticeable as, there, the foreigners had introduced their own weights. The common maund of North India before Akbar was 28 or 29 lbs. avoirdupois.

In Kashmir, however, different system of weight and measurement was being used. Patta is originally equal to one bigha, one biswa (Illahi) of Akbar. Two and half pattas and a little more are equal to one Kashmiri bigha. A Kharwar was equal to 3 mans and 8 seers of Akbar. Tark was equal to 8 seers of Akbar.[2]

The Ain (Vol. III) gives details of the weights of Jewellers and bankers and others which need no mention here. Tola, masha were the common bankers' weights which have continued to the present times.[3] De Laet speaks of the weights used in the early years of Shahjehan's reign. The Batman was the weight of 55 lbs., or 82 English pounds. "The maune is 55 English pounds of 50 Dutch pounds, smaller than this is a weight called Ceer or Keer which weighs 30 persae or 1¼ Dutch pounds. . . These weights were some times changed by the emperors. Akbar's weights were 1/5th, less than in the times of his successor Salim."[4] Under Shahjehan both standards were common. One masha was equal to 15o5. grains, The 'batman' was a Turkish weight and equalled an Indian maund. Akbar fixed the seer at the Weight of 30 dams *i.e.* the Akbari maunds of 40 seers weighed 1200 dams each of 324 grains or about 55½ English pounds but English factors usually took it at 55 lb. But in 1619, Jehangir on the advice of a religious mendicant ordered seer to weigh 36 dam according to Hindu scriptures. This is why De Laet adds that Akbar's maund was 1/5th less.[5]

6. Financing of Trade and Industry.

Capital organisation being a movement of the recent growth it must not have existed in the period under review. The manufactures were on the artisan or agricultural level and as such no great necessity was felt for the pooling of resources as in the present times. As the Muslim law prohibits interest, the Muhammedans did not dabble in money business. Other people either hoarded their wealth or spent it. Besides the common habit of hoarding and consuming large hoardes of metals, gold, silver and precious stones, the concern

1. Moreland, *India at the Death of Akbar* p. 52.
2. *Ain II.* (Jarrett) p. 90 (Footnote 2). One Kashmiri tark equalled 8 seers, of Akbar equal to 4 Kashmiri mans. One Kashmiri man is equal to 4 Kashmiri seers. One Kashmiri seer is equal to 7½ pals.
3. *Ain II*, p. 370.
4. *Ain III.* (Jarrett and Sarkar) pp. 137-39.
5. De Laet, *Empire of the Great Moghal*, pp. 104-6.

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of the upper class was the anxiety and "uncertainty of reaping where one had sown." There were no joint stock companies, no trade unions, no labour movements and no concentrations of labourers like Calcutta or Bombay etc. Of course "there was a movement of labour towards the capital,"[1] where it was needed both for work as well as for display.

The indigenous system of banking through shroffs and village money-lenders was practised in villages on a meagre scale. The state Karkhanajat manufactured goods to meet the royal demands. Private ventures on big scales were uncommon and as such private financing agencies were too rare. The King was the sole banker. He advanced big loans and financed industries. As he would not deal in small sums, and as he would give money only to those whom he liked, so a need for other institutions which would take small businesses, issue hundees (bills), exchange old coins for new coins at a fixed discount was keenly felt."[2] Though the latter part of the business was done by the King, it was confined to the capital or to the seats of the provincial Government. Referring to the state help, Abulfazl remarks : "His Majesty from his knowledge of man's nature gives donations in various forms. It looks as if he lends, but in his heart he makes a present, or he calls the donation a loan but never asks it back. The far and near, rich and the poor, share his liberality."[3]

The royal bounties were on personal recommendations and did not aim development of trade or industry. According to William Irvine, support was given either to mansabdars or to people of the state service through a petition for a madad-i-muash (literally help to live) on the ground of being a holy man or being a student of the holy-books, and attendant on a mosque (Mutwalli or a Khadim), a man of learning and religious life (darvesh), a local judge (Qazi) or an expounder of the Muhammedan-Law (mufti).[4] The business-man or an industrialist was out of question. The king's wealth was fabulous. According to Smith's estimate, Akbar left 40 million pounds sterling in coined money which would be many times more now. In Agra alone he left 20 million pounds besides treasures in the six big provincial seats, the total of which must have been at least 20 millions sterling."[5] John Briggs estimates Akbar's wealth in a different way. Besides 5000 to 6000 elephants he possessed gold coins worth ten crore of rupees, the gold coin being known as Allayees, one crore worth of

1. Pant, *Commercial Policy of the Moguls*, p. 70.
2. *Ibid.*, p, 72.
3. Abulfazl, *Ain I.* Eng. Tr. Blockman, p. 276 (Ain 16).
4. *Ain*, II. (Jarrett). p. 58.
   William Irvine, *Army of the Great Mugals*, p. 3.
5. Smith, V. A., *Akbar the Great Mughal*, p. 347.
   As compared to 1919 prices (the date of the book's publication, prices are 700 or 800 p. c. higher and now 40 millions would mean 1400 to 1600 million sterling and not 200 million sterling as Smith wrote.

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Allayees for private treasury, ten maunds full weight of uncoined gold, 70 maunds of uncoined silver, 60 maunds of uncoined copper and one crore coined tankas. Besides these he owned 12000 stable horses, one thousand camels and 1000 yooz (hunting leopards).[1]

Free Banking business under Akbar was not known. Subject to the control of his officials some limited banking was permitted. At the royal treasuries alone silver coins were exchanged for gold and gold for silver which brought great profit to the royal treasury."[2] Darshani, Miti and Shahjog hundies circulated. Jokhami hundies were common for small distances. Shahjog hundies were common as the difficulty of identification was done away with, but it did entail risks.[3]

Akbar was himself a trader and did not hesitate to make profits. On the request of Faizi to appoint experienced and sympathetic persons in cities and towns to look after price control, Akbar agreed and issued orders accordingly."[4] Some of the fine industries of Gujrat, Agra and Kashmir were reserved for the emperor. "Ports and cities were not open to settlements of foreign merchants as a matter of course."[5]

As for the times of Jehangir, reference has been made to Virjee Vora's activities in Banking business (who died in 1677) and Chettis on the Coromondal and Malabar coasts. They were the famous financiers of their times. Thevenot mentions Virjee Vora as late as 1666.[6] That discrimination on communal lines was made while advancing loans, is clear from an instance of the perverse mentality of a judge named Abdel Hussein, who while deciding Bowcan's case in 1610 laid down that "it was not justice to pay debts to Christians."[7]

Like Akbar, Jehangir's treasure was also great. Hawkins gives a full account of it and estimates it at £2,38,495,000 besides precious jewels, stones and costly novelties, rich trappings, ornaments, horses, elephants and other costly articles.[8]

During the times of Shahjehan, the money market was well-organised. Hundies and Insurance business was also carried on. It was a custom to pay in old coins and demand new coins on the redemp-

1. John Briggs, *History of the Rise of the Mughal Power in India*, Vol. II pp. 281-2.
2. Hoyland & Bannerjee, *Commentary of Father Monserrate*, p. 207.
3. Pant, *Com. Policy of the Moguls*, p. 79. (Darshani hundies are sight bills; Miti are time bills and Shah-jog are something like currency notes of merchants payable on demand.
4. Smith, V. A., *Akbar*, p. 411;
   Akbar Nama, Abulfazal, Per. Text, p. 203. Tr. by Beveridge, Vol. III. p. 560 II.
5. Moreland, *Akbar to Aurangzeb*, p. 221.
6. *Travels of Petermundy* (1608-1667) Vol. II. foot-note 1, p. 139.
7. William Foster, *Early Travels*, (1583-1619) p. 147.
8. Pant, *Commercial Policy of the Moghuls*, pp. 168-9.

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tion of the debt. The shroffs who acted as money changers in the market also acted as bankers and issued bills of exchange for remittances of money subject to the sanction of the officers concerned. A discount of 2 percent was charged of which half went to the Governor of the province.[1]

Aurangzeb being a staunch Muhammedan, the banking business suffered a great deal. Charging of interest being prohibited under Islamic tenets, the Imperial treasury which was then a Banker's bank, stopped all money lending business. Hindu money lenders were persecuted. As the peace of the country was disturbed, trade was dislocated and there was little demand for Hundies. The foreigners withdrew from internal trade, confining their activities to sea-trade on the coastal areas and the south.[2] "Money was so tight that the cash prices were very favourable. Shivajee also dislocated the English trade by attacks on the Western coast and Surat. After his attacks on Surat in 1664, the factors wrote home: "Sevagy is so famously infamous for his notorious thefts that reports hath made an aerey body and added wings. . . ."

In Gujrat, however, money might be lent by the lakhs upon personal security.[3] In conclusion it might be said that the personal interests of the Mughals in their personal venture and love of Shahjehan for buildings, combined with the fanaticism of Aurangzeb did not allow encouragement to the financing of trade and industry in the long run.[4]

1. *Ibid.*, p. 189.
2. *Ibid.*, p. 229.
3. Moreland, *Akbar to Aurangzeb*, p. 156.
4. Though the money market was well organised during Shahjehan's times, enough improvement would have been possible if the government had so cared. Shahjehan's frivolities mentioned by Inayat Khan in his "Shahjehan Nama" left no finances for financial development in the interest of the country. He sent a costly jewel-embedded lamp to Mecca (Per. MSS. p. 206), spent on personal pleasures and the famous peacock throne and gave grants, pensions, rewards and constructed the Taj and other costly buildings. (MSS. p. 199) and rewards to relations as already mentioned.

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CHAPTER 8

MARKETING FACILITIES AND MEANS OF TRANSPORT

1. Transport in General

That through the annihilation of distance, improved transportation has far-reaching results and that it makes possible a better distribution of goods and an increase in wealth, was not realised by the Mughals who had exquisite taste for palaces and forts. The Romans have been famous for road-making in the whole of their empire. Neither did the Mughals realise that, transport "transforms the organisation in industry, creates great cities and raises the standard of living, promotes culture and unites politically."[1] "However, attention seems to have been given upon its (transport's) ability as a means of country's defence, little caring for its utility as an integral part of the economic system. In the period under review, transport was neglected and metalled roads were few. There was practically nothing to compare with modern means of transport—air services railways, steam-ships and automobiles. However, human carriers beasts of burden and wheeled traffic provided the only means of transport even over long distances on land, while boats on rivers and small sailing ships in the coastal seas provided water transport Eulogising the benefits of Shershah's reign, which were in fact the pioneer attempts of their kind, in the whole of the Muslim period, Father Francois Catrou adds : "Had no other advantage accrued to India from the usurpation of Shershah, this alone merits confession of its usefulness. He did more than really furnish a place of cover for persons travelling."[2]

The problem of transport of the period can be considered under two heads : the land transport and the water transport.

2. Land Transport

The problem of land transport requires a discussion of the various types of roads existing in the period under discussion. Even in the early Hindu period there existed a regular road system with rest houses not frequently unknown. The Jatakas mention voyages of several travellers. These roads consisted of overland caravan routes across deserts going westwards to the port of Broach and Northwards to Qandhar and Central Asia.... "The Jataka of Anath Pindakas mentions caravans travelling from South East from Savathi to Raj graha and back about 300 miles and also towards Qandhar. A great

1. Trumon C. Bigham, *Transportation Principles & Problems*, p. 11 Dr.Marshall in his *Principles of Economics*, adds : 'The dominant economic fact of our age is the development not of manufacturing but of the transport industry."
2. Father Fancois Catrou, *Mughal Dynasty in India* (1826).

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trade route connected India with Central Asia and Western Asia by way of Taxila (Rawalpindi precincts) and Sagela in the Punjab lay towards the North''.[1] These routes were immune from danger unlike the routes of the Sultanate period. A Royal Grand Trunk Road 10,000 stadia in length connected North West Frontier with Patliputra. It is wrong to suppose that Shershah was the original builder of this road. The review of road administration clearly proves that North India in the time of Alexander the Great had attained a high degree of civilisation which must have been the product of evolution continued through many centuries. Unfortunately no monuments have been discovered which can be traced with certainty to be of the period of Chandragupta or his son. However the efficiency of administration can be traced back from Ashoka's times.''[2] These roads were not roads in the ordinary sense of the term, but they meant a network of well-beaten roads throughout India and were used by the armies in times of the wars and by merchants and pilgrims in peace times. The same state of affairs continued in the whole of the Sultanate period. And even speaking of the modern times Dr. Vera Anstey rightly adds: ''Although the rough tracks of Northern India... are easily traversed in the dry weather, and although coastal and river transport have, in many areas, provided an easy means of communication, it has proved exceptionally difficult and expensive to introduce improved means of transport''.[3]

"In Northern India," says Moreland, "these routes were in some cases at least suitable for wheeled traffic and long lines of carts might occasionally be seen, but from Golcunda southwards to Cape Comorin, carts were practically unknown, and pack animals or porters were the only means of transport by land.''[4]

3. Means of Land Transport

The manufactures of vehicles was less important from Babar to Akbar's times as compared with the modern times. Carts could be used in a level country but the rivers and the steep gradients were formidable impediments and the bulk of the heavy traffic was moved by means of pack animals. Carts were used for valuable goods such as treasure or indigo where there were difficulties of loading or unloading. For passenger traffic lighter carts drawn by trotting oxen were available in some parts of the country. Palanquin was an ordinary kind of conveyance. Horses and ponies were rarely used. Amongst the presents sent by the East India Company to Jehangir, there was an English coach which created some sensation at court and was used

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1. Jawaharlal Nehru, *Discovery of India*, p. 86.
   Cambridge History of India, Vol. I. p. 214.
2. C. H. I., Vol. I. p. 517; V. A. Smith, *Early History*, p. 135.
   Buhler, *Indian Studies* No. 3.
3. Vera Anstey, Chap. VI. p. 128.
4. Moreland, *India at the Death of Akbar*, pp. 6-7.

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as a model by local craftsman.[1] Akbar's regulations make no provision for draught horses, his extensive stables being maintained solely for riding.[2] The modern patent of carriages was developed in Akbar's times.

The following description of Goes who began his journey in September, 1603 bears testimony to the difficulties of the route, the actual conditions then existing and the various agencies of transport utilised in the way. He began his journey from Lahore with a caravan of 500 merchants along with horses and wagons, as was usual. The traffic was slow, roads were infested with robbers and haltages were many. Passing through Attock, Peshawar and Ghideli, where duty was paid, he arrived at a spot in a mountainous valley, where he was assaulted by the robbers and escaped to woods. He reached Kabul after 6 months and 21 days. Then the caravan reached Charakar where duty was charged in utter disregard of the Mughal license. Then passing through Paravam, a town on the boundary of the Mughal dominions, and following the mountainous route, Goes reached Bhutan whence came musk, rhubarb and some furs. From Patna it was only three months travelling through Gorakhpur. The route lay through dense forest full of wild elephants, for whose fear, the caravan kept awake, not for fear of men but to safeguard eatables. Palkeys, oxen, horses and camels were the usual means of transport. From Nagarkot, women carried men and materials, three women carrying one man. The luggage and provisions were carried on goats and the passengers on the back of women who tied on their shoulders a large woollen roll fixed to a cushion. Goats could carry 150 lbs. weight. The food of the porters consisted of a pound of flour, half a pound of brown sugar, half a pound of butter. In the evenings, they contented with only flat peas bruished and steeped half an hour in water. The charges for ten days for the porters were Rs. 2/- each and Rs. 2/- for each goat. After crossing the mountains travelling on the backs of horses, camels, oxen or palkeys became a common affair.[3]

4. Roads

The history of road-building in the Mughal Empire commences from the reign of Shershah. The roads were constructed in various directions for purposes of defence. Agra was the focus of all roads, the longest and the best known amongst them was the road running from Sunargaon (near Dacca) to Indus 1500 kos in length.[4] Shershah built three other roads:

1. Sir Thomas Roe, II p. 6.
2. *Ain I.* Blockman, p. 136.
3. Pinkerton, *Travels, Vol. VII* p. 594.
4. *Tuhafa-i-Akbar-shahi* Abbas Sarwani, Per. MSS. (S. B. U.) p. 177. *Tarikh-Akbar shahi-Badayuni*: Badayuni. (alias Muntakhab-ut-Tawarikh) Per. MSS. (S. B. U.)p. 455.
Tarikh, Farishta. Per MSS. (S. B. U.) p. 228
Mirat-i-Alam, Bakhtawar Khan, Per. MSS. (S. B. U.) p. 589.
Qanungo, *Shershah*, p. 388.
A. L. Sriwastawa, *Shershah & his Successors*, p. 84.

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(i) From Agra city to Burhanpur on the border of the kingdom to the Deccan;

(ii) From Agra to Jodhpur and the fort of Chittor;

(iii) From Lahore to Multan.[1]

These roads were admirably planned connecting together all the strategic frontier cities. On any threatened point, the armies of the Empire could be centred rapidly. For the comfort of the travellers, shady trees were planted on both sides, serais (rest houses) were established at the interval of every two koses. Altogether he built 1700 serais. At every serai he built separate lodgings, both for the Hindus and the Muslims, and at the gate of every serai, he had placed pots full of water that any one might drink and in every serai, he settled Brahmins for the entertainment of Hindus, to provide hot and cold water, and beds and food and grain for their horses, and it was a rule in these serais that whoever entered them, received provisions suitable to his rank, food, litter for the cattle from government villages established all around the serais. In the middle of every serai there was a well and a masjid with a shehna and a watchman and two horses to carry dak, all maintained at the state expense. The muqqadims at the villages on the roads were responsible for every robbery in their domain, and as such they were required to watch over the area of their territory.[2] The author of Muntakhab-ut-Tawarikh (Badayuni) says he had himself seen the road from Bengal to Rohtas which was in many places ornamented after it had stood for 52 years.[3] Islamshah, the son of Shershah, built one serai each between two serais of his illustrious father and engaged the same staff and provided the same conveniences.[4] In his times, like his father's the muqqadims were to protect the limits of their own villages lest any thief or robber or enemy of theirs might injure a traveller and thus be the cause of their destruction and death. The hakims and the governors were directed to treat the travellers properly and not to escheat the belongings of the travellers in case of their death and in the words of Nizami, he would say : If a merchant die in your country, "it is perfidy to lay hands upon his property."[5] Shershah levied custom duties on the roads only on two posts *viz.* (i) when the goods came from Bengal at Ghari (Sikri Gali); (ii) When the goods came from Khurasan, the duty was levied at the place of entry as well as at the place of sale.

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1. *Ibid.*, *Tauja-i-Akbarshahi* Per MSS. p. 225; *Elliot* Vol. I. p. 417.
2. A. L. Sriwastava, *Shershah* etc. p. 85. *Ibid.*, *Elliot.* Vol. IV. p. 418. *Tauja-i-Akbarshahi*; He used to say "*Rah ha za duzd aeman saz Gar tau khuahi za mulk aabadan*" "If thou wisheth to keep thy country prosperous, keep thy roads free from the fear of thieves".
3. *Ibid.*
4. *Tauja-i-Akbarshahi*, Per. MSS. p. 181. *Elliot IV.* p. 432. *Tarikh-i-Daudi*, Abdulla, p. 549. *Elliot* IV. p. 16.
5. Abbas Sarwani, per. MSS. p. 181; *Elliot IV.* pp. 419-20.

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No other duty at the ferry or on the road was levied.[1] "Travellers and way-farers encamped at night at every place, desert or inhabited, without fear, they placed their property and goods on the plain and turned their mules to graze, and themselves slept with minds at ease and free from care, as if in their own house, and the Zamindars, for fear if any mischief should accrue to travellers, they should suffer to be arrested or accounted for it, kept watch over them. And in the times of Shershah a decrepit woman might place a basketful of gold ornaments on her head, and go on a journey, and no robber or thief would come near her for fear of punishment. Such a shadow spread over the world that a decrepit woman, feareth not a Rustam.[2]

"*Chunan saya gustard bar Alame, Ki zale na andeshad bar Rustame*"

The roads of the Mughal Empire were imperfectly levelled and unmetalled, and provided here and there with a causeway over the small ravines and streams, and generally with a ferry wherever the route crossed over the larger rivers. In a letter to the company in 1666 A.D., the Council remarked that "here are no beaten roads or mending of highways, but the first cart that travail must cut them a new, with their wheels, that makes it very tedious and troublesome travelling in the first of the years."[3] In the 16th and the 17th centuries a well metalled road like the modern ones, which have improved after age-long research in road construction, could not be conceived, and even at the commencement of the 19th century, Sleeman writing in 1835 remarked that "all roads in India become water courses—they are nowhere metalled, and being left for 4 or 5 months every year without rain, their soil is reduced to powder by friction and carried off by the winds over the surrounding country".[4] But the remarks of the Counsel are exaggerated. The village roads after rains might look like what he writes, but this was not so with the highways of the Mughal times. Some roads of Shershah and of the Mughal rulers were metalled but absence of due supervision made them ruts. Unmetalled roads did exist since long antiquity, but that "roads are a service for all forms of development whether of agriculture, trade or industry"[5] was not realised.

Though Babar ordered his marches to be measured and due records kept of them, he found little time to construct big roads. He makes a mention of the caravan routes from Farghana Samarqand, Turkestan, Bukhara, Balakh, Badakshan to Kabul and from Khurasan to Qandhar and a brisk trade every year in dried and fresh fruits towards India. "Every year," writes he, "Seven thousand or eight thousand horses come from Kabul, one thousand caravans come to India to take Indian goods including cotton cloths, sugar, candy and

1. *Ibid.*, Abbas p. 181, *Elliot Vol.* IV. p. 432.
   Tauhfa-i-Akbarshahi : (Per. MSS.) p. 181; *Elliot* IV. p. 432.
2. *Ibid.*, Abdulla : *Tarikh-i-Dandi in Elliot* IV p. 559.
3. Foster, *English Factories in India*, 1665-67, p. 570.
4. Sleeman, *Rambles and Recollections* Ed. by V. A. Smith, p. 301 (pub. 1915).
5. *First Five Year Plan of India*, 1951, p. 175.

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medicinal herbs''. He further writes "that merchandise of Khurasan, Iraq, Turkey and China are available in Kabul. From Kabul merchants can cross the mountains covered with snow and that plenty of sugar canes come from Lamnat. From the hilly sides of Ghazni come plenty of honey and were sent to Kabul''[1]

Ain refers to several inventions of Akbar in wheeled carriages. He invented a large cart drawn by one elephant. It was large enough to hold several bathrooms and thus it served as a travelling bathroom. Camels and horses were also used for pulling carriages. Akbar also invented "bahals'' which could accommodate several persons.[2] He standardised his kos to be of 5000 yards (gaz). "Whenever His Majesty travels,'' writes Abulfazl, "the distances are recorded in full measurement by careful surveyors and their calculations are audited by the superintendent and the Inspector.''[3] When Akbar drove a highway to Deccan through a gap in the Satpura range and built the royal road, he was merely continuing a policy sanctioned by the ancient Hindu ideal of good administration. Tom Caryot speaks of "a row of trees on each side of the way, where people do travell, extending itself from the townes end of Agra, the most incomparable shew of that kind that ever my eies survaid,'' Besides planting trees on both sides of the roads, Akbar built serais. While Terry describes road, and serais, Finch also follows him in eulogising the serai at Chaparghata in Sengur as "more like a goodly castle than an inne to lodge strangers, the lodgings very faire of stone with locks and keys able to lodge a thousand men.''[4] The main highways were proper, roads and bridges on smaller rivers not many. A bridge of ten arches on the Gomti at Jaunpur constructed between 1564 and 1568 by Munim Khan exists even today. Usually the rivers were crossed by ferries or bridges of boats, and on occasions of flood the rivers became impassable or could be crossed with difficulty. In Akbar's reign, the Mir Barr-i-Bahr (The Head of Admiralty and the First Commander of Works) was entrusted with the construction of roads and bridges.[5] This appointment was held by Qasim Khan who superintended the building of Agra Fort, and was noted for the construction of bridges of boats for Akbar's armies to pass over. Even for ordinary traffic, he constructed several bridges in the Punjab and Agra.

5. Roads in the Times of Akbar and other Mughals

There were five important roads:

(i) *From Surat to Agra (Via Burhanpur)* which terminated on the one hand in China and on the other in Persia. This route passed

1. Zainuddin, *Waqai Babri*, Per MSS. (S. B. U.) pp. 149-50.
   Indian Exports mentioned are:
   "*Rakht-i-safed wa nabat o shakar was aqaqiri*"
   Erskine, *History of India, Babar & Humayun* Vol. I. p. 530.
2. *Ain I.* Blockman, p. 285.
3. *Ain II* Jarrett, p. 417.
4. William Foster, *English Factories* 665-67 p. 179 *Terry's Voyages* Ed. 1655, p. 81.
5. Smith, V. A., *Akbar the Great Mughal*, p. 413.
   Abdul Fazl, *Akbarnama*, Per MSS. (S. B. U.) p. 373.

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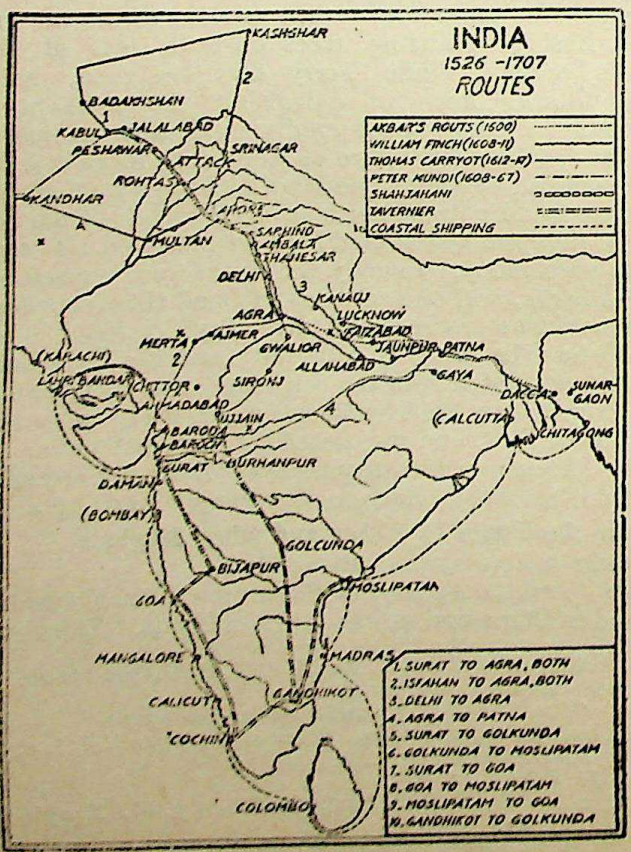
through Surat, Burhanpur, Gwalior, Dholpur, Agra, Delhi, Lahore and Kabul. It also connected Lahore, Multan and Qandhar and went beyond as far as Persia.

(ii) *From Surat to Agra via Ahmedabad.* It touched Surat, Broach, Baroda, Ahmedabad, Roha, Bagra Merta, Ajmer, Bander Sindri, Bayana, Fatehpur Sikri, Agra. The importance of this route lay in the areas served. Surat, the busiest port in the Mughal Empire, was directly connected with the Capital. Both these routes have been mentioned by Tavernier.

(iii) *Agra to Bengal via Benares and Patna.* This route passed through Agra, Etawah, Allahabad, Benares, Mughalserai, Patna, Bengal.

(iv) *Bengal to Surat.* This connected the eastern-extremity of the Empire with Surat (Empire of Akbar). At Burhanpur the route joined the Agra-Surat route (Route No. 1). This was followed by Ralph Fitch who returned from Agra to Tanda, the starting place. The whole journey took him five months. He followed the route from Masulipattam, Bengal, Bellapur, Burrumpore (Buranpur), Mandca, Ujjain, Gwalior, Agra, Prag (Allahabad), Benares, Patenau (Patna) Tanda [1]



1. Purchas, *Pilgrimes*, Vol. X. pp. 172-81.

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(v) *Agra to Oudh.* (Ajodhia, Faizabad etc.) which led to Agra by a different route: Agra, Kanauj, Lucknow, Ajodhia, Faizabad Jaunpore, Allahabad, (Here it joined the Agra Bengal route No. 3)

Thus it is clear that Agra was well served by routes where they converged and diverged from all directions. The Punjab conducted a "considerable business *via* Kashmir with Laddakh, Yarqand and Kashgar. Amritsar and Jullundar were important centres from which the route runs Northwards past Kangra and Palanpur to Leh."[1] The routes on the Southern sides of the Vindhyas were not important under Akbar's reign and most of the Deccan did not form part of the Mughal Empire.

Akbar's policy of making roads seems to have been followed by Jehangir in whose reign Lahore gained greater importance and as such, routes converging there gained greater attention, but the importance of routes to Surat and Bengal also remained undiminished. The Kabul and Qandhar routes were not busy but the hostilities between the Portuguese and the Mughals in 1615 which adversely affected sea traffic, increased their importance. "By these routes indigo from Agra was sent to the Levant and sold in the Mediterranean markets."[2] Some famous travellers in the reign of Jehangir's followed the following routes: —

(i) *William Finch.* (1608-11) Agra, Runukta, Badegsari (Jamalpur) Akkar, Hodal, Palwal, Faridabad, Delhi, Panipat, Karnal, Thaneshwar, Shahabad, Ambala, Sarhind, Phillaur, Kisarai, Sultanpur, Lahore, Aminabad, Gujrat, Khwaspur, Rohtas, Rawalpindi, Hassan Abdal, Attock, Peshawar, Masjid-Daka, Ali Bagham, Jalalabad, Budda Chharbag, Nimla, Surkhab, Doaba Kamree (Bikramee), Kabul, Talikhan (a city in Badakshan.)[3] From Kabul to Kashgar was three months' journey. Yarqand was a famous emporium for musk, rhubarb and merchandise from China.

(ii) *William Finch* describes another route from Lahore to Kashmir which was famous for fruits, grains, saffron, fair and white women shawls.

(iii) *Thomas Caryot* (1612-1617) The famous Odcombian leg-stretcher, travelled from London to Constantinople and then to Aleppo. From Aleppo to Agra he took the following route which cost him 50 shillings and 10 months:

Aleppo Biarbeka, Tabriz, Kazwin, Isaphan, Qandhar, Multan, Lahore, Delhi and Agra.

(iv) *Peter Mundy* (1608-1667) He quotes the measurement of routes from Surat to Agra *via* Burhanpur and from Agra to Surat *via* Ahmedabad.

"From Surat to Brampore (Burhanpur).... 170 miles (small course)
From Brampore to Agra ..... 226 miles ,, (long)

1. W. W. Hunter, *The Indian Empire*, p. 556.
2. William Foster, *Early Travels in India*, 1583-1619 p. 168.
3. *Ibid.*, p. 169.

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170 small course at 1¼ miles per course is 212½ miles.

396 course of India make 551 English miles.

Agra to Seedpur (Sidpur) 284 great course at 1½ miles English course amounting to 426 miles.

Sidpur to Surat 130 small course at 1¼ miles English per course amounting to 172½ miles.

414 miles make 598 English miles.''[1]

From Agra to Patna he computes 253 great course equal to 379 miles. Tavernier says that Surat to Agra *via* Ahmedabad takes 35 to 45 days. He describes the route from Qandhar to Agra *via* Kabul and Multan. Though the route *via* Multan is 10 days shorter yet the Caravan did not adopt that owing to the deserts between Qandhar and Multan. He mentions Isphan to Agra route and adds that the journey fell into 150 stages joining Isphan, Farah, Qandhar, Kabul, Lahore, Delhi, Agra.[2] The road was planted with shady trees and Tom Caryot admired this long walk of 400 miles.

(v) *Sir Thomas Roe.* His journey from Surat to Ajmer and back to Surat *via* Baroda in September 1615 was *via* Burhanpur.

During the reign of Shahjehan, the transport system was disorganised due to dacoities on the highways as also by the High handedness of the Emperor and his officials. The vast Empire from Kabul to Bengal and from Kashmir to Bijapur was being weakened by the love of display of Shahjehan and the weakness of his sons. The State finances were recklessly spent over stately buildings, furniture, palaces forts, gifts etc., as already referred in the previous chapter. The Mughal officers started extortion by way of road taxes and bribes and highway men defied imperial orders. Large bands of robbers lurking in the hills of Rajputana and Gujrat attacked caravans.[3] Hill tribes in lower Sind proved a source of great trouble almost to the very gates of Ahmedabad in Gujrat : the Kolis plundered day and night. The Governor of Ahmedabad failed to give justice against oppression to innocents, and "deluging the poore of their hire and the Governor's unbecoming tiranie in depopulating whole towns of miserably pure people, under pretence of their harbouring thieves and rogues (while those that are such may walke untoucht at noone day) are grievous testimonies of his riggid despotism, though the factors themselves are plenty spectators and not sufferers.''[4] The overland routes from Multan to Kashmir lost their importance on account of disturbed state of affairs on the frontier due to the three sieges of Qandhar.

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1. *Ibid.*, p. 72.
2. *Tavernier Travels*, p. 36.
3. William Foster, *English Factories*, 1646-50, p. 193.
4. *Ibid.*, p. 127.

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This diverted trade to Surat, and sea-trade between Surat and Gombroon benefited a great deal thereby. The English earned a good profit by carrying men and commodities from one port to the other. The overland routes were as follows :—

(i) *From Agra to Jaunpur.* 130 kos from Agra "is—Cannova (Kanauj) a large unwalled city at the foot of the mountain on whose top is a well fortified citadel. . . . then Lacanouw (Lucknow), is 30 kos. This is a great trading centre, and then to Oudh (Ajodhia) to Akberpore 30 kos from this place, but on the route is Benares, a famous emporium of products of Bengal. From Akberpore to Jaunpore is 30 kos. From Jaunpore one may return to Agra by another route through Halebasse (Allahabad) which is 110 kos through a lonely and unbroken forest."[1]

(ii) *Agra to Ahmedabad.* De Laet has mentioned some more towns and halting places than others. Fatehpore, Scandrabad, Hindoine (Hindaune), Chenigo (Chandangaon), Mogelserai, Nonnigong, Gamgram, Cherriat (Berat), Capital of the ancestors of Raja Mansingh, Landany (Landana), Mousalde (Mozabad), Bramerande (Bander Sindree) to Asmer (Ajmer). From Ajmer the road leads to Cairo (Garoo), to Merta, to Pipera (Pipera), Jogesgong (Jogika Gaon), Severrange, Candempe (Khandap), Jeloure, Mudra to Ahmedabad.[2]

(iii) *Agra to Ajmer.* The distances between various stoppages have been given. From Agra to Fatehpur 12 kos, to Banobad 12 kos, to Hendowne 12 kos, to Mogolserai 14 kos, to Lalschotte 12 kos, to Chadpole 13 kos, to Pipela 7 kos, to Mosabad 13 kos, to Bandersondre 10 kos, to Modil 12 kos, to Asmer 2 kos.

(iv) *Ahmedabad to Laure Bander.* The total distance was 213 kos. The intervening places joined were Tatta, Coassumpore, Calitattowny, Calwalla, Carriya, Deccanaura, (Dekawara) Balloda, Fort Sariandgo, Radimpore, Nagarparkar, Bordiano, Nauraquimiron, Gandaiuv, Sarruna. From Radimpore upto Tatta, there was a desert, and the road was dangerous due to dacoits who did not recognise any authority. Only for about 40 kos in the vicinity of Ahmedabad the route was safe.

(v) *Lahore to Qandhar.* The route passed through Chaksunder, Naushera, Mopalkee, Kamalkhan, Harappa, Chakalishah, Talumba, Sidduserai, Khatti, Churkiabadi and Multan situated three kos from the bank of the Indus, then crossing the river, and again crossing the river called Lacca. Then began the mountainous route the chief characteristics of which were deserts, inhospitable land full of robbers and a wild population. The chief places touched were Chatza, Duckee, Secolta, Pessinga and Randhar.[3]

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1. De Laet, *Description of India* (Tr.J. S. Hoyland, Taraporevala 1928) pp. 64-5.
2. De Laet, pp. 65-7.
3. *Ibid.*, pp. 69-70. This is copied from the Journal of Steele and Crowther Vol I. p. 132.
Sarkar, *India of Aurangzeb*, p. 107.

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(vi) *Agra to Chatigan (Chittagong), the fort of Bengal.* This route passed through Allahabad, Benares, Patna, and Tanda. Upto Allahabad the route lay through the Jumna.[1]

Tavernier describes travelling in detail and makes a mention of the following routes existing in the reigns of Shahjehan and Aurangzeb :

(*i*) *Route from Surat to Agra.* As already noted there were two routes : (1) *via* Sironj and Burhanpur, (2) via Ahmedabad. These routes were constructed by Akbar.

(*ii*) *From Isphan to Agra.* There were two routes : (1) from Qandhar through Kabul, (2) through Multan. From Qandhar to Kabul the route lay through a desert where for 3 or 4 days together while travelling, water was not available.

(*iii*) *Qandhar to Agra via Kabul and Lahore.* From Qandhar to Kabul bread was available at only two places.

(*iv*) *Delhi to Agra:* The road passed through Muttra and was a continuation of the above road.

(*v*) *Agra to Patna; and Dacca.* The road passed through Allahabad and Benares. Tavernier met 110 wagons drawn by 6 horses each and in each wagon Rs. 5000/- were conveyed which sum represented the revenue from Bengal.

(*vi*) *Surat to Golcunda.* This road was 324 kos in length. Tavernier saw three hundred wagons laden with marble drawn by 12 horses each. At Nandaur men had to pay Rs. 4/- each wagon to obtain a passport from the Governor.

(*vii*) *Golcunda to Masullipattam.* The road was mountainous and no trade was carried on it. It was not used for wheeled traffic though horses, oxen, palkeys were the common means of transport. The condition of the road was very unsatisfactory and still worse was the road from Golcunda to Cape Camorin.

(*viii*) *Surat to Goa via Bijapur.* The route was partly by land and partly by water. The Malabaris were a source of great trouble. The route was 61 gas (one gas was equal to 40 leagues). Nearly 200-250 pirates on 15 or 10 barques attacked and burnt the ships of the merchants after plunder.[2]

(ix) *Goa to Masullipattam.* It passed through Cochin.

(x) *Masullipattam to Gandhikot.* The latter was a city and garrison in the province of Carnatic.

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1. Allahabad is called 'Pragus by Fitch while *De Laet Calls* it Hellabasse.
2. *Tavernier's Travels*, pp. 45, 51, 53, 69-81.

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(xi) *Golkunda to Gandhikot.* It was combined land and water route on which oxen and boats were used.

The roads between Surat and Golcunda acquired importance as a result of the Mughal activities in the South specially in the times of Aurangzeb. Men and material were directed to perform duties required for military operations. On account of Aurangzeb's absence, routes in the North became unsafe. Jats near Agra and Rajputs in Gujrat and Sindh carried on plundering activities. The coasts of Bengal, Coromondal and Malabar became the scene of pirates' activity and operation.

All the available transport—carts, camels and men—was required by Aurangzeb to move his harem and his men to the South. Transport rose to exorbitant cost.[1]

6. Transport Charges

For the transport of luggage bullock carts were used, but the hilly nature of the Deccan physiography did not allow a wheeled traffic. Elsewhere raths (chariots), a special type of bullock cart, more comfortable and more graceful drawn by bullocks were used by better placed gentry. Generally men used to go on horses and their merchandise was carried by men-porters. For crossing a sandy desert or frontier, camels were used. In the fertile plain of Oudh, these "ships of Desert" were also used. Ladies and grandees used palanquin but this was costlier and less speedy. The royal family used elephants and they were costly to maintain. Though travelling was unsafe, it was suited to the needs of the times. Whenever the King was on a journey, he took the whole paraphernalia with him, rather the capital moved with him with thousands of men in tourage. Smith speaking of Akbar's days says: "Akbar's court even when quartered in a city was a camp and his camp was a travelling city."[2] People waited till they had formed caravan, else be subject to danger of life and property. The delay hampered movement of persons and goods. On the way there was scarcity of provisions and goods, both for men as well as for cattle, and officials, added insult to injury by demanding their own illegal gratifications. The same methods continued throughout the Mughal period.

As regards the transportation charges we obtain a detailed information from Huge's letter of 5th October 1620. Carts carried half a ton and land transport from Agra to Patna took 30 to 35 days.

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1. Sujan Rai, *Khulasat* (Per. MSS. S. B. U.) p. 53.
   Khulasat mentions good roads from Kabul to Peshawar, Jalalabad and Namla. Another road ran between Alimasjid to Jamrud under difficult conditions
   Tavernier, 69, 88, 91.
2. Smith, *Akbar*, p. 357.

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"The carriage of 81 maunds would cost Rs.153/- and Rs.8/- besides, if carts arrived in time. Loss by robbery and rain were common."[1] The charges from Agra to Surat *via* Burhanpur were Rs. 14¾ - for camel load of approximately 500 lbs." "In 1638, a cartage contract on this route was settled for 2¾ - per 74 lbs. In 1651 the charge from Agra to Ahmedabad per camel was Rs. 15-3 being on the Rajputana route. In 1639 goods could be carried from Agra to Lahore at Rs. 2/- per maund of 74 lbs. Reducing these and other rates to a common standard, we find that the cost of carrying 100 lbs. a distance of 100 miles in North or in the West of India ranged between Re ½ and Re ¾ - of a rupee exclusive of anything required for payment of armed guards and inland custom duties. These latter charges varied greatly according to local conditions, that might add materially to the cost as is shown by Petermundy's reference to a contract by which the carriers from Agra to Ahmedabad "took to discharge all custom demands in return for a payment of Rs. 45/- per cart and Rs. 9/8/- per camel load."[2]

During the times of Shahjehan, transport was on a very unsettled system. Roads were unsafe due to dacoities as also due to King's interference who wanted the men engaged in the transport service to be at his services for building operations in Delhi and elsewhere. Wagons coming to Agra from Surat and Jehanabad were compelled to carry lime which came from Broach and which when combined with coral became as hard as marble. The transport labour was engaged through a headman concerned who was security for the porter's integrity and who charged Re 1/ from each porter as his dues. The caravans engaged in the transport of commodities were very often quarrelling with one another and Shahjehan pacified them by offering rewards and presents.[3]

Tavernier makes a mention of Manori tribe which consisted of one lakh of men. There were four tribes each consisting of one lakh of men who lived in tents and engaged in the profession of transportation. The first of the tribe carried corn, the second rice, the third pulse and the fourth salt from Surat and Cape Camorin. The tribes used distinguishing marks on their forehead. The wheat carriers marked a red mark on their forehead with wheat, the second a yellow mark with rice and the third a grey mark with millets and the salt carrier carried a bag of salt weighing 8 to 10 lbs. There were caravans of 200 wagons each drawn by 10 or 12 horses attended by four armed soldiers, two on each side of the wagons.[4] The wagons travelled for 60 days together, 12 to 15 leagues a day. The charge was Re 1/-

1. *Factory Records*, Vol. 1.
2. Moreland, *Akbar to Aurangzeb*, pp. 150-51.
3. *Tavernier Travels*. p. 83. Once Shahjehan gave Rs. one lakh and a chain of pearls.
4. *Ibid.*, p. 29.

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a day. The charge from Surat to Agra was Rs. 40/- to Rs. 45/-, the journey being completed in about 40 days. From Surat to Golcunda, the distance being the same the charge was also the same. The palanquin carriers went faster than the sedan and received Rs. 4/-a day and Rs. 5/- if the journey was a long one and required more than 60 days to finish it. Night travelling was common due to extremes of heat. Rich men engaged 30 soldiers for their guard.[1]

While travelling from Persia merchants used oxen or vans. Horses were not used for burden. They were only for sale. Each horse carried 300-350 lbs. of weight. Caravans of ten or twelve thousand oxen were common carrying rice, corn or salt. Camels were used by big persons for carrying luggage, and oxen when speed was required. The ox-drivers kept their families with them and a party consisted of 100 oxen with one leader richly dressed with necklaces in his neck. The roads were narrow, as on both sides, there were rich fields of corn round village ponds which were rather too common, and were a great hindrance to traffic which had to stay for several days at times till all passed by. During the times of Aurangzeb, as already noted, due to his mad Deccan policy, trade and transport came to a stand still. "While Aurangzeb, by his mad Deccan policy was annihilating trade and starving his subjects, the English were laying the foundation of their empire in India."[2]

7. Post Arrangements

The important role of post as an integral part of the economic system was not widely recognised by the Mughal Kings. And this was primarily responsible for the immobility of men and material. Shamsiraj-i-Afif, the author of Tarikh-i-Firozshahi, speaks of queer instance of post of Firoz Shah Tughlaq marching through Kanauj and Oudh. Reaching the vicinity of a place, where he later founded Jaunpore after the name of his father, he could not trace the route to Delhi for six months, and his capital was ignorant of his whereabouts. When after great search the route was traced out, every soldier was asked to write his welfare. A camel load of letters were sent to Delhi which were piled up in a heap before the palace and all who expected letters were directed to come forward to receive them.[3] This is one example of postal delivery in acute times. Earlier, Sultan Allauddin had established posts beginning from Tilpat. At every post relays of horses were stationed and at every half or quarter kos runners, officers and report writers were appointed. Every day or the alternate day the Sultan used to receive news reporting the progress of the army, and intelligence of the health of the Sultan was regularly conveyed to the soldiers. Thus false news were prevented from circulation.[4]

1. *Ibid.*
2. Pant, *Commercial Policy of the Mughals.*;p. 224.
3. *Elliot* Vol. III p. 309. (Extract of *Tarikh-i-Firozshahi*).
4. *Tarikhi-i-Firozshahi in Elliot*. Vol. III. p. 203; Qanungo, *Shershah*, pp. 393-4.

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This is the earliest record of a publicity bureau. Two hundred years later Sultan Sikander Lodi revived the Dak Chowki with a far less espionage. Under him it became a more permanent institution, used both for military and civil purposes. News reached Sultan in the mornings and afternoons and he controlled the movement of his armies like a game of chess.[1] Daily reports of market prices in the Kingdom, occurrences and the condition of the army were conveyed to him daily on the same lines as that of Sultan Allauddin Khiljee.[2]

Shershah was the first King to have made successful arrangements of posts upon which depends the success of administration. In every serai, at every two kos, two horses were kept for carrying news right from Nilab to the extremity of the empire in Bengal (Sonargaon). News reached through spies also, who utilised the services of the Dak Chowkis. This was the origin of the News Department of the Mughals.[3] Hussain Tashtdar, once on an emergency, rode from Gour to Chittor a distance of 500 kos at 50 kos per day, and rode on day and night. Whilst asleep, the carriers ran with the bed, and while awake, rode on the horse back. Shershah besides 3400 horses had engaged 5000 elephants for bringing news of his dominions consisting of 1,13,000 villages. His motto was :[4]

"*Sahib-i-khabran amin-i-shahan bashand, Maqbol-i-dil jehan panahan bashand*"

"Those who keep all news are the custodians of Kings, confidence; they are beloved of their protectors(Kings)."

In Bengal there were 40 forts and news reached him (Shershah) regularly from all of them.[5] Salim Shah made a serai between every two serais of his illustrious father and maintained the same arrangements of Dak Chowki.[6]

Akbar established posts throughout the Mughal empire, having two horses and a set of footmen stationed at every 5 kos. They were employed to convey letters on ordinary business to and from the court.

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1. *Tabqat-i-Akbari*, Nizamuddin, Per Text p. 171.
   Farishta, Per Text p. 187. He copies it verbatim.
2. *Ibid.*, (*Farishta*) p. 187; *Tabqat-i-Akbari* p. 171.
3. Qanungo, *Shershah*. p. 392;
   Tarikh-i-Khan-i-Jehan. Per. MSS. (S. B. U.) p. 186.
   Elliot IV, p. 418; Sriwastava : *Shershah* etc. 86.
4. *Taufa-i-Akbarshahi*: Abbas Sarwani. Per MSS. (S.B. U.) pp. 185-6
   Tarikh-i-Badayuni.. Per Text p. 521.
5. *The Forts of Shershah were as follows*: Delhi, Akbarabad, Lahore, Kashmir, Attock, Allahabad, Garhi Bahli, Ajmer, Jhansi, Gwalior, Kalyan Godha, Taragarh, Mandu, Ujjain, Hasanqila, Kangra, Monghyr, Sirkaran, Jodhpur, Meerut, Saan, Kabul, Ghazni, Peshawar, Gaffrabad, Shergarh, Nagarkot, Beranjee.
   Dak reached from them every day. (Mirat 691 b.)
6. Waqiat-i-Mushtaqi in *Elliot IV*. p. 418; *Tarikh Daudi*, MSS. p. 225.

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The footmen travelled 50 kos within 24 hours so that a letter took 5 days to reach Agra from Ahmedabad, a distance of nearly 500 miles. Four thousand runners were in his permanent employment, some of whom on extraordinary occasions performed a journey of 700 kos in ten days.[1]

In the times of Jehangir, there was no arrangement for the carriage of correspondence, which was sent by private messengers, who were obtainable in the chief marts, and were known as bazar qasids. The time required for a journey from Agra to Patna was 13 days. The same policy seems to have been followed in the reigns of Shahjehan and Aurangzeb, though for state purposes, there were state arrangements. Dr. Sarkar gives a graphic account of the system in his Mughal Administration.[2]

Private post was either entrusted to these agencies or in some special cases despatched through special runners. Sufficient evidence of such a post being carried efficiently with speed is available. Hawkins tells us that the matter of difference between him and Muqarrib Khan, the Governor of Surat, had been reported to the King before he himself arrived to complain of it. From Agra also Hawkins reported his arrival through a letter which he entrusted to the State runner carrying Jehangir's order to Muqarrib Khan to treat the English well. Hawkins again refers to the news sent bythe merchants of Goa, of the arrival of English ships at that port. Three days after this,another report came of their arrival at the bar of Surat.[3] Badayuni refers to a regular correspondence and even transmission of parcels between him and his friend Sheikh Yaqub of Kashmir.[4] Many such instances can be multiplied which exhibit the existence of regular post arrangements.

8. Water Communication

This branch of communication refers to the transport of men and merchandise through boats and ships in rivers, canals, lakes and seas. In this country there were no navigation canals like those of Europe and America fit for navigation, and even in the modern times, India possesses very few. There were no lakes except the Dal in Kashmir which served only as a resort for sight-seeing. River communication was, however, important. The Ganges Brahmputra system including the Jumna and the Punjab Indus system provided important routes for communication. The Mughals had evinced keen interest in the rivers. Babar was fond of boating and swimming.[5] Humayun's four important departments of the state administration

1. *Tarikh-i-Farishta*, Per. MSS, (S. B. U.) pp. 271-2.
   John Briggs, *History of the Rise of Mughal Power*, Vol. II.
2. Sarkar, *Mughal Administration*, p. 54.
3. *Hawkins*, pp. 81, 94.
4. *Muntakhab-ut-Tawarikh*, Badayuni, Per. MSS. (S. B. U.) pp. 144-8.
5. *Tuzaki-i-Babri*.
   C. H. T. Vol. IV, p. 14.

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included one concerning water.[1] Soon after Humayun had settled in India, he made several inventions in boat construction. Four large barges were prepared according to royal directions in the Jumna. In these boats a two-storied square apartment (Chhar Taq) of elegant design was constructed, and these barges were so joined together that the four apartments faced each other, and thus, between each two of the barges, another apartment was projected. Consequently an octagonal courtyard appeared between these barges. And the four compartments were so adorned with nice cloths and other valuable objects that understanding was puzzled by the sight of their beauty and magnificence.[2] The other invention was a moving market. The boat builders had constructed several large and capricious barges and on both sides of these shops had been built. In the centre of these boats, an additional large market with an extensive central hall was arranged for shops. Royal orders were issued that people of all professions and arts should open their shops in these barges and carry on their trade and transactions. But very little business was transacted.[3] Humayun started on boats from Tughlaqabad (Delhi) to Agra with all nobles and officers, and a market was arranged, where one could obtain whatever he wanted of food, drinks and dresses, cloths, ammunition and weapons of war. Every convenience was provided for horticulture by state gardeners, fine orchards were built and flower plants of all kinds of vegetation and tulips and jasamine were seen flourishing in the river. This moving garden was wonderful.[4] The third invention of Humayun was a moving bridge (Jasr-i-Rawan) which Beveridge rightly considers the "only useful work of Humayun."[5] Several boats were tied together with hooks and chains in the river and covered with wooden boards which were so firmly fixed to them by iron nails that they would not shake at all, whether riders or passengers crossed over them. On occasions of journey, the bridge was divided into several parts, joined from one bank to the other.[6]

Akbar maintained his interest in boats. Ain mentions of the fostering care of the Emperor over his admiralty. Strong boats capable of carrying elephants were fitted out and some boats could be utilised in the operations of war. Experienced officers were appointed "to look after ships as if they were houses.... and use them as excellent means of conquest."[7] Ships were specially numerous in

1. *Humayun Nama*, Khwand Amir, Per Text p. 51 b; Eng. Tr. by Dr. Beni Prasad, p. 36. The four departments were as follows :— (1) Fire—Aitishi including artillery, armour, arms, weapons of war. (2) Air—Hawai—ward-robes, kitchens, stables, management of mules and camels (3) Abi-water-Syrup manufacturing, wine sellers, digging of canals, rivers and all works relating thereto. (4) Earth Khaki-including agriculture, building operations, administration of Exchequer land and other departments.
2. *Humayun Nama*, Khwand Amir, Per Text p. 52, Eng. Tr. p. 37. *Akbar Nama*, Abul-Fazl : Per Text. I. p. 360; *Beveridge* p. 647.
3. *Humayun Nama*, Khwand Amir, p. 61; Tr. Eng. p. 43.
4. *Ibid.*, Per. 64; *Eng. Tra.* p. 44.
5. *Beveridge Akbarnama* I. p. 648. Note 2.
6. Khwand Amir. Per. p. 65; Eng. Tr. p. 44.
7. *Akbar Nama*, Abulfazl, Per. Text, I. p. 360; *Beveridge* I. p 468. Note 2.

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Bengal, Thatta, Kashmir where they benefited commerce a great deal. Along ocean coasts, the West coast and the South coast, large ships were built which were suitable for ocean voyages. The harbours were improved and the experience of the sea-men considerably advanced. Lahore and Allahabad also constructed big boats and even sent to the coast. Experienced sea-men acquainted with the tides and waves of the deep sea were appointed. Malabar provided best sea-men. Once Kashmir built a model ship which was well admired. In large ships there were 12 sailors (Nakhuda) occupying different ranks. Ain gives details of their monthly payments which differed according to the length of the voyage. In the harbour of Satgaon (Hugli) a Nakhuda got Rs. 400/- besides four cabins for his personal use, a Muallim Rs. 200/- and two cabins, Tandill Rs. 120/-, the Sarhang Rs. 25/-, the Subhangar, Panjari and Bhandari each Rs. 15/- and Karwan Rs. 40/- besides his daily food. The Degandaz or the gunner received Rs. 12/- In Khambayat a Nakhuda got Rs. 800/- and other men in the same proportion. In Lahore the Nakhuda received Rs.300/- and other men in the same proportion. These payments were higher in South India than in the North. In Aichin a shipper got just half of what he received on the coasts in South India. Portugal 2½ as much, in Malacca twice as much; in Pegu just as much as in Cambay. The boatsmen on the rivers were paid 100 to 500 dams per mensem. Akbar remitted many tolls with great loss to the revenues; only a tax of 2½ was levied which was rather negligible.[1] It is interesting to note the details of tolls charged on boats. On boats weighing 1100 maunds, toll was Re. 1/- provided the boat and men belonged to the same owner. But if the boat was on hire, the tax was Re. 1/- for every 2½ kos. At ferry places an elephant had to pay 10 dams for crossing, a laden cart 4 dams, empty 2, laden camel one dam, empty ½, horses, cattle laden ½ dam, empty ¼ dam; other beasts of burden paid 1/16 dam which included the toll for the river. In the case of men, 20 people paid one dam for crossing but very often free.[2]

The Ganges and the Jumna were important waterways no doubt, but the rivers of Bengal were more frequented than at the present times, specially during the rains. Fitch travelled from Agra to Bengal with a fleet of 180 boats, the vessels available on the Jumna on occasions sufficed to transport the huge armies of Akbar. The accounts available of Lahore and Multan indicate that the Indus system was at least well-provided. The boats were fairly large. "At Lahore they were 60 tuns and upwards. Vessels fit for the coasting trade were built at that city and also at Allahabad; some of the barges on the Jumna were of 100 tuns while those on the Ganges ranged upto 400 or 500 tuns, and it is clear that a considerable traffic could be carried by these means.... The dangers of robbery on the waterways were very real."[3]

1. *Ain I*, Blockman, pp. 389, 290-292.
2. *Ain I*, Blockman, pp. 289-92.
3. Moreland, *India at the Death of Akbar*, pp. 167-168.

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Raizada Chatterman adds that there were 4200 big boats and 4400 smaller ones.[1] In Thatta also boats were used for communication purposes.[2] In the country as we have seen, there were only three waterways and as such road transport must have occupied greater attention in the period under discussion.

Speaking of Aurangzeb's times, however, Alexander Hamilton gives a vivid account of navigation of the Indus. Boats could load 200 tuns and were well provided with all amenities of life. The Punjab rivers were important for fish. Navigation was provided into Kashmir and a branch of the Indus could allow boats to go even in the province of Kabul.[3] From Thatta to Lahore it took 6 to 7 weeks time though from Lahore to Thatta only 18 days. The seasons were the dominant factors both for water and land traffic. The strength of the flood and the direction of the winds affected water transport in as much the same degree as the scarcity of fodder and water during the summer season must have affected the land trasport.

9. Coastal Navigation

The shores of India both Eastern and Western have a hilly hinterland where wheeled traffic was not possible. Again as already pointed out, on the land transport, there were various tolls and barriers where the local Jagirdars or petty Government officials presented untold difficulties to merchants inspite of several royal farmans from Humayun to Aurangzeb.[4] As such the merchants were induced to send their goods by water than by land, and these conditions were

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1. *Chhargulshan*, Chatterman, Per Mss. (S. B. U.) p. 40.
2. *Khullasat*, Sujan Rai, Per MSS. (S. B. U.) p. 36.
3. Pinkerton, *Voyages*, (Collections). Alexander Hamilton. (1688-1723) Vol. VIII p. 307.
4. A few Farmans are mentioned below :
   1. *Humayun* : In the name of Bohra Ismailia Community. 21 Rabi-ul-Awwal 948 H. For freedom of trade. Humayun during his exile was treated well by the Bohras.
   2. *Akbar* : In the name of Daud S/o Qutub Sheikh, Head priest of the Bohras addressed to Governor of Gujrat, all Hakims of Ahmedabad and Sidpur to allow them to trade undisturbed. Dated 1, Illahi H. 1004.
   3. *Jehangir* : In the name of Sheikh Daud, allowing trade facility. 19 Jamadi-ul-Avval 1019 H.

The above Farmans are noted from "Faramin-i-Sallatin" edited by Bashir Ahmad Talaqdar (Published by Delhi Printing Works, 1926). The above are numbered 169 (p. 245), 170 (p. 246), 171 (247). Below the Farmans, the editor quotes that he obtained these from Taib Ali Abdul Rasool Shakir, Editor : Nasim-i-Sahar, Jubbulpore.
Quoted in an article "The History of the Bohras" in Urdu by Sheikh Ghulam *Abbas*, Head Master, Taibiya School, Udaipur in "Aadil", Urdu Weekly, Ajmer, dated 5-6-1945. This writer copied the Farmans from a book Al Rosat-ul-Bahi. Tarikh-i-Salatin-i-Fatima, by Syed Nadir Hussain, Nadiri Press, Jubbulpur

Continued on next page.

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vigorously felt on the Western than on the Eastern coast. Even now from Karachi to Bombay or from Bombay to Mangalore there is no direct railway route due to the difficulties of physiography. The coastal trade was therefore of great importance on both sides of India, but its organisation was not uniform. 'On theEast coast small boats appear to have plied more or less independently throughout the trading season, but on the west the danger from the 'pirates', was so great that practically the whole of the traffic was conducted under convoy.''[1] The Portuguese guarded the waters from Cochin to Goa, and Goa to Bombay, and even surprised the pirates in their harbours. The merchants waited till they had formed themselves into a Qafila. As the boats could be safely rowed, the boatsmen did not wait for a favourable season to start. The Cambay Convoy consisting of 200 to 300 crafts which might aggregate 10,000 to 20,000 tons completed the annual traffic each way something between 20,000 to 30,000 tons. The ships coming from Bengal and the Coromon dal coast, and those coming from Malacca joined at Ceylon and were conveyed to Cochin. On the east coast "trade in rice was particularly imprtant"[2] providing good shipping but the Western coastal trade was much more due to the foreign powers settling there.

I made personal enquiries from His Holiness Mulla Tahir Saifuddin, the Chief Priest of the community regarding the veracity of these farmans.
Akbar excused 16000 Iraqi Sikka to check dearness of corn. (*Mirat* : MSS. p. 291); *Tazak-i-Jehangiri* in *Elliot Vol. VI.* p. 284. Prohibition of cesses, Road and water taxes (Mir Bahadur Tax) allowed though Sir Thomas Roe criticises prohibition as he was badly treated and searched. (Roe in Verr's collections Vol. IX. p. 225; *Elliot* Vol. VI. p. 414; Elphinston: *History of India* Vol. II. p. 132). *Mirat-i-Ahmadi* refers to Jehangir's prohibition of road and river taxes. (MSS. p. 291).

Aurangzeb's Farmans :

(i) Muntakhab-ul-Lubab (Md. Hashim Khafikhan), *Elliot* Vol. VII p. 246 Rs. 25 lakhs remitted and other taxes running to 80 crores excused. Taxes on highways frontier & ferries bringing high revenue excused as it was vexatious to travellers. In 1668 (1078 H.) orders passed.
(ii) *Mirat-i- Ahmadi* p. 430. Farman in the name of Mukarramat Khan 4 Jamadi-ul-avval 7th year of reign. Another farman in 1075 H. Articles of less than Rs.52 8 - not to be charged duty on road. Besides, grass fodder, loaded camels and imports into Ahmedabad excused road taxes.

In 1077 H. a third farman in the name of Bahadur Khan transferred as Gujrat Governor from Allahabad to remit Rahdari taxes p. 420. Varaus other farmans quoted on pp. 436, 449, 450. (Hindus excused grazing tax) p. 452. bridge tax from Pul Siyah Alamgiri excused for all. 15 orders issued.
iii. Md. Kam Khan *Alamgirnama*. Per. MSS. (S.B.U.) p. 437. Abwab and road taxes excused. Actual words are

"*Afoo kardan jami zi wujud rah darest... Baz futurat dar mumalik Hin dustan-faiz-imakan ravi nimud. Azan rah guzri az jumla ikhitlafi bahal riyaya rah yafta bud*".

Marathas in their territories charged Re. 1 - to - 8 - from camel and bullock carts. (p. 46).

1. Moreland, *India at the Death of Akbar*, p. 240.
2. *Ibid.*, p. 241.

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The Indian-owned shipping excluding Portuguese shipping lost ground in the period. Though Gujrat gained ground, it failed to retain it in Bengal and positively lost on the Coromondal coast. Before the arrival of the European powers Muslim India had a share in the shipping trade, but after Portuguese and the English had settled, a lion's share was shared by them. The efficiency of the Dutch and the English ships and their better knowledge and understanding of weather, must have given them better and advantageous position.

10. Nature of the Traffic

The main traffic on the Ganges consisted of salt from Rajputana, whilst textiles and indigo were the most important commodities on the Indus. Bengal on the other hand had important trade in the produce of the province specially of rice. Provisions of superior quality were supplied from the direction of Agra. Sugar was supplied by sea to all India *i.e.* to the Western coast and rice was carried to Ceylon and Malacca. Gujrat, not being self-supporting, was supplied by corn from the North and the East .. Rice was sent from the East and wheat, maize, and millets from Malwa and Rajputana. The regions of Central India being sparsely populated must have supplied corn for export. Della Valle's remarks support the above statement. Piracy was a great impediment.[1] Near Bahraich commodities from the Himalayas came in abundance on backs of men, ponies and camels. These consisted of gold, copper, musk, honey, pepper, rice-boiled dates, pomegranates, grapes, figs, salt and wax. Horses were imported from Kabul.[2]

11. Organisation of Mandis (Emporiums)

Most of the towns in India owed their existence to one of the following reasons: (1) they were places of pilgrimages or sacred places of some sort; (ii) they were the seats of a court or the capital of a province; (iii) they were commercial depots owing their importance "to their peculiar position along the trade routes."[3] We are mostly concerned at present with the last classification, but even the first two types of cities did become trade centres, and as such they cannot be avoided from a brief discussion. Striking examples of the first class towns are Benares, Allahabad, Gaya, Mathura, Ajodhia, Ajmer etc. The large majority of these places being Hinduistic and most of them enjoying a continuous prosperity till the modern times from historic past, their number was restricted and not capable of indefinite increase.

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1. Moreland, *India at the Death of Akbar* cf. pp. 241-244. In 1608 Finch heard of the Capture by pirates of a ship and three boats from Ormuz, of 16 boats out of 25 from Cochin, and of 30 boats bound for Dieu. The Portuguese chronicles contain many such occurrences.
2. *Waqai-i-Babri*, Per MSS. (S. B. U) pp 50-51.
   Chhargulshan, Chatterman, Per MSS (S. B. U.) p. 26.
3. D. R. Gadgill, *Industrial Evolution of India*, p. 6

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Those belonging to the second group, having originated in the establishment of a court, the most important and the most numerous of the whole, the court might be an-imperial court or it might contain the retinues of a petty chieftain controlling a small province, but in either case the nature of the town was the same. The prosperity of such towns naturally was tagged up with the influence of the court, and no sooner was the court removed, or its influence took an adverse trend, then the towns were to face their downfall. With the transference of the court, the whole body of craftsmen and artists would automatically move away. The old capital in the Deccan, like Deogiri etc., became unimportant and crumbled as soon as they lost power. Then followed the Muslim dynasties of Ahmadnagar, Bijapur and Golcunda. Bijapur at the height of its prosperity was second to no city in India, but with the fall of Ahmadshahi dynasty, all its glory suddenly vanished and only the monuments remained proclaiming its historic past bristling with tales of heroism and romance.

The characteristics of urban life in India were determined by the factor of the court influence. The town depended entirely on the nobles and their retinue and was often merely a semi-permanent camp.

The last class of towns were the trading or commercial towns. These owed their importance to their peculiar position along the trade routes, confluence of important rivers. Mirzapur, owing to its situation at the highest navigable point in the Ganges, had a prosperous trade with Bengal and Central India. A very great proportion of the cotton export of Central India passed through this city. This class of towns was not very numerous.[1]

A few important mandis (commercial towns) which owed their importance to trade owing to their location are described below :—

(i) *Ahmedabad.* Besides being a seat of a kingdom and later of a provincial Governor, it was at the head of a route from Surat to Agra as noted already. "The new capital of Gujrat," writes M. S. Commissariat, "continued to grow steadily in size and population for nearly two centuries, and the work of adorning it with architectural monuments worthy of its importance, was carried out with unremitting energy both by the Sultan and the nobles. By the end of the 16th century Ahmedabad came to be regarded as the finest city of Asia."[2] The author of the Haft Aqlim, a well-known geographical and biographical treatise in Persian completed in 1593, gives the following description of the city :

> "Ahmedabad is unique in India in the matter of neatness, and flourishing condition, and it is superior to other cities in the excellence of its monuments. It would be no exaggeration to say

1. Of the towns over 20,000 only six were due to trade. Census 1891, U. P.
2. Commissariat, *Gujrat History*, I. p. 101.

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> that in the whole of the world there exists no town so grand and beautiful.... Its shops with two or three storeys each, are finely built, and its inhabitants both men and women are graceful,,.....[1]

In the Ain-i-Akbari, in the account of the Subas of the Mughal Empire, Abulfazl thus describes the capital of Gujrat :

> "Ahmedabad is a noble city in the high state of prosperity which for the pleasantness of its climate and display of its choicest productions of the whole globe, is almost unrivalled.....,,[2]

Ali Muhammad Khan, the author of Mirat-i-Ahmadi, who wrote in the middle of the 18th century after reproducing the eulogy of Haft Aqlim goes on to make the following additions :

> "...And in truth, a city with such beauties is rare, whence it has been called the "Beauty of Beauties" (Zinat-ul-Bilad), and the "Bride of the Kingdom." Precious stuffs are manufactured here and exported to various parts of the world. And the merchants who traffic by land and sea, make it a profitable trade. Mosques and markets abound and round about the city there are 300 suburbs. Sultan Mahmud II (1537-1554) during his reign made Mahmudabad, 12 kos of his capital, but the road to Ahmedabad from that place was so covered by markets on both sides as well as houses of the people, that the two cities appeared one. In particular the art of weaving golden and silken stuff are unequalled in India for colour and beauty. The fame of the art of Ahmedabad has spread to various parts of the world and to the distant cities of Iran, Turan, Rum and Syria"[3]

(ii) *Kabul.* Included in the Mughal Empire, it was the seat of a prov(incial capital and a centre of caravan routes from Khurasan Iraq,Turan, Turkey, China and India. It was an important centre for the production of fruits which were exchanged for other commodities. Grapes, pomegranates, peaches, walnuts, apricots, guavas and melons of the vicinity were exchanged for cotton textiles, sugar candy, medicinal herbs from India; musk from Nepal, and porcelain from China. One thousand caravans annually went from Kabul to India. Babar writes : "In Kabul commodities of Khurasan, Iraq, Turkey and China are available... Fruits like oranges and sugar canes come from Lamnat.... Horses come from Kabul. India imported 7000 to 8000 horses annually."[4]

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1. M. Abdul Muqtadir, *Haft Aqlim* (Per. T.). *Bib. Indica* pp. 86-7.
2. *Ain II* (Jarrett) 1891 p. 240, *Mirat Aftabnama.* Per. T. P. 317.
3. Nawab Ali & Seddon, *Supplement to Mirata-i-Ahmadi* p. 7.
4. *Waqa-i-Babari* Per MSS. (S. B. U.) pp. 149-50. Actual words are :

"*.... Hazar khana dar kurwan Kabul mi ayad. .... Matai Hindustan ....mi arand... mita-i-khurasan o Iraq o Room o Cheendar Kabul yaft mi shawad.... Mewa hai garm tar misl naranj wa turanj wa angur o neshakar az Lamnat mi arand...*"

Sujan Rai, *Khulasat*, p. 52 b; *Okhar*, p. 49.

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(iii) *Ghazni*. It was also a meeting place of various caravan routes from India, Persia, Iraq and Kabul and developed into an important Mandi. "It produced grapes which were better than those of Kabul as also pine-apples in plenty."[1] Melons were also grown.

(iv) *Burhanpur*. It was a meeting place of roads from Agra and Ahmedabad. It was a good mandi of grains and must have served as an "Entrepot" trade centre. In the latter Mughal period it developed into an important military cantonment and industrial mart for Chintz.[2]

(v) *Bijapur*. It was an important mandi. Waqa-i-Asad Beg gives a vivid description of the city. The bazars were 30 yards wide and 2 kos long. In beautiful shops, well arranged, all articles of luxury and comfort were available right from jewellery, armours, birds of various sorts studded with jewels down to knives, mirrors, sweets, perfumes, flowers and vegetables. Singers, dancers and wine-sellers adorned the other side of the market. Pleasure seekers congregated. The whole bazar was filled with wine and beauty... No place in the world could present a more wonderful spectacle to the eye of the traveller."[3]

(vi) *Sironj*. It was 100 leagues from Burhanpur. It was a great city. Tavernier refers to the busy life of the city which was an important centre for the printing and manufacture of Calicuts, coverlets table-cloths and bed-sheets. Corn and rice, besides cotton cloth were the main articles of export. The localisation of chintz and calicuts in the city was due to the water of a river close by which gave liveliness to colour.

Tavernier metions the same type of industries in the same tone for Burhanpur.[4]

(vii) *Thatta*. It was an emporium of the provinces of Gujrat, and a very large and rich city, 3 miles by 1½ miles, 40 miles from Lari Bander and had a large citadel capable of lodging 5000 horses and men in barracks. All merchandise of the surroundings were collected here with great difficulties, as the region round about was infested with robbers and roads were unsafe.[5] The chief products of the vicinity

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1. *Waga-i-Babri*, p. 161. *Actual words* are : "*Az angur-i-Kabul, angur-i-Ghazni behtar ast.*"
2. *Tavernier's Travels* p. 32 (Though the town was in ruins with thatched huts, it commanded a busy trade in white Calicuts and lines which were sent to Ormuz, Tribizond, Persia, Turkey, Poland, Arabia etc.)
3. *Waqi-i-Asad Beg* (*Halalat-i-Asad Beg*) in *Elliot* VI. p. 165. The city was in ruins but the transference of a court again made it full of life, and a busy trade centre.
4. *Tavernier's Travels*, p. 32.
5. Pinkerton, *General Collection of Travels* vol. VIII. Alexander Hamilton (1688-1723) p. 304. (A. Hamilton adds : "In 1699 a rich caravan was robbed by a band of 4000-5000 robbers." While coming from Malabar to Laribander with merchandise worth 10,000 in a Qafila of 1500 beasts and the same number of men and 200 horses, he had an encounter with dacoits whose heralds he killed one after the other.

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consisted of salt-petre, sal ammonia, borax, wheat, legumen, provender, horses and cattle. Famines were unknown due to the floods of the Indus from April to June, which annually renewed the soil. The manufactured articles consisted of silks called jamawars, cottons and silks called cattenes, and mixture of silk and carmania wool called culbuleys, calico and coarse and fine cloth called jurie.

(viii) *Qasimbazar*. It was a village which owing to silk production developed into a mandi carrying on silk manufactures and trade as discussed previously.

(ix) *Tanda*. Here the Ganges separates into branches, one flowing towards Satgaon and Orissa and the other towards Mahmudabad, Fatehabad, Sunargaon and Chittagong. It was the central part of Bengal and a great mandi by virtue of its position as also due to the river routes which it commanded.[1]

(x) *Hugli*. Khafi Khan says: "The Faringees had formed a commercial settlement at Hoogly, 20 kos from Rajmahal. The merchants there were licensed sellers of tobacco".[2] Its importance developed due to its situation on the great highway of commerce on the Ganges.

(xi) *Benares*. Besides being a religious centre of learning and pilgrimage, it was an important centre of trade and manufacture of brass and copper wares, bell metal, vessels for holding the Ganges water. Trade developed in many luxurious articles like wire and tinsel industry, weaving of silk textiles of all kinds, work in gold, silver and stone, ivory and wood. Its situation on the Ganges added to its importance.[3]

(xii) *Dacca*. It was famous for muslin industry of high quality which was used by the King and his nobles. Muslins were also made at Krishnagar, Chanderee, and a few other places.

(xiii) *Delhi, Agra, Lahore, Allahabad, Lucknow*. Though these owed their importance primarily due to Imperial or the Provincial seat, they developed into great mandis due to the advantages of the locality which they enjoyed as centres of routes on river banks, and centres of industries which were common under such circumstances. Allahabad was, besides, a seat of Hindu pilgrimage.

Some Important Ports

The discussion of ports would better merit attention in the chapter on Commerce but due to their importance as market centres a brief discussion is necessary at this stage.

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1. Abulfazl, *Akbarnama*, *Elliot* Vol. VI. p. 56.
2. M. Hasnim Khafi Khan, *Muntakhab-ul-lubad*. *Elliot VII*, p. 245.
3. Gadgill, *Industrial Evolution of India*, p. 36.

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(i) *Surat.* It was situated on the south bank of the estuary of Tapti which then had a good delta. Though inferior to Rander, it was according to Barbosa, one of the major sea-ports of Gujrat. The establishment of the English and the Dutch merchants during the reign of Jehangir and onwards gave the port the bulk of new ocean'c trade between India and Europe. The destruction of Rander in 1530 A.D., by the Portuguese, materially contributed to the importance of Surat.[1] Many roads from Agra and Ahmedabad finished here and as such it enjoyed a rich and a long hinterland. During the times of Bernier and Tavernier it was very important, but due to the constant silting of the Tapti Delta it gradually lost its importance.

(ii) *Rander.* It was an old town situated on the bank of the apti facing Surat and was the principal commercial centre of Broach in the first quarter of the 16th century.The immigrants consisting of the Arab Shias who traded with Malaca, China, Tennasarim, Pegu, Sumatra, in spices in their own ships and also dealt in silks, musk, porcelain, and other commodities enhanced the importance of the port.[2]

(iii) *Cambay.* During the 15th and 16th centuries, it stood amongst the foremost cities of Gujrat and held a position which in the following century was transferred to Surat and now enjoyed by Bombay. The Italian traveller, Varthema, who visited Cambay in 1506 tells us that 300 ships of various nations touched the port and that the city supplied Persia, Syria, Turkey, Barbary with silk and cotton stuffs.[3] Durate Barbosa is louder in his praise of the "Fair city" of Cambay, its wealth and luxury, its industry and its craftsmen than of any town in Gujrat. The city was situated in the midst of a pleasant district, which was rich in supplies of all kinds. The merchants—Hindus and Muslims were wealthy merchants. The foreigners were also found in large numbers.

(iv) *Other ports.* Besides Cambay, Rander, Div, Dieu and Surat, Barbosa metions South Gujrat ports also. These were Patan, Somnath, Mangrol, Ghogga, Broach, Gandar, Bhavnagar, Dhanu and Thana. Sultan Sikander Lodi of Delhi (1488-1518) the contemporary of Mahmud I, and of his son, contrasting the wealth of his once Imperial Realm, is reported to have said : "The magnificence of the King of Delhi rests on wheat and barley; while that of the King of Gujrat, who has rightly 84 ports under him, has its foundation upon coral and pearls."[4]

Mirat-i-Ahmadi mentions 22 ports round Bander Khambayat with an income of 34 lakhs. Besides, the following ports of Gujrat

1. M. S. Commissariat, *History of Gujrat,* Vol. I. p. 265.
2. *Barbosa* I. P. 146. *Commissariat* I. p. 264.
3. *The Travels of Ludivico de Varthema* (Hakluyt Soc. London) p. 111.
4. J. Bird, *History of Gujrat.* p. 132; *Mirat-i-Ahmadi,* Hussain Md. Khan. Per MSS. p. 38. The number of ports mentioned is 48 and not 84 which is incorrect.

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were famous : Khokha, Lahri Bander, Broach and Surat.[1] Their income was 20 lakhs. In Sorath Sarkar there were 9 ports *viz.* Banderwans, Devibander, Boribander, Uhuh, Baindo, Manglore, Nagsar, Karniar, Sakhapur. Their income was 40 lakhs of rupees.[2]

The Ain mentions Cuttock as an important port in Orissa. It is situated at the bifurcation of two rivers, the Mahanadi and Katjuri, a tributary of the Mahanadi. It was the seat of the province.[3]

12. Marketing Agencies

After having traversed through details of the means of communication through land, rivers and seas and also having studied the system of post existing during the period, we are in a position to make a correct estimate of the actual system of marketing agencies of Indian products and manufactured foods. With its peculiar constitution, the village community was an important element in the economic set up of the country. The towns were notorious for their general aloofness from the general economies of the majority of the population. The country was characterised by the ignorance of the masses, localised mints and an indifference to the affairs of the outside world. Whereas in Russia there was general specialisation of professions in the villages, there being separate villages of Smiths as different from those of carpenters and weavers,[4] conditions did not favour such a type of economic life in India, owing to the absence of facilities for a wide market consequent upon the inefficiency of roads and the dangers of travelling as referred to in the foregoing paragraphs. India's Budhistic literature nowhere speaks of a remarkable localisation of Industries. There were craft villages as distinct from ordinary villages. There were villages of wood-wrights, ivory smiths and potters. These villages were localised either in the vicinities of large cities or even near rural areas, constituting a special market for the whole country, to make purchases of razors, ploughshares, iron goods and needles. The site of the villages used to be the Ganges bank or some central position affording marketing facilities.[5]

Local trade of India was conducted in the permanent bazars or in the towns, at weekly markets in rural villages, at annual gatherings held for religious purposes or by means of travelling brokers or agents. The cultivator himself who was the chief producer and also the chief customer, knew little of large cities and expected the dealer to come to his own door.

As for village farmers finance, the village money lender must have been the only recourse. What W. W. Hunter wrote in 1871 must be true in the whole of the Mughal period under review. W. W. Hunter

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1. *Mirat-i-Ahmadi*, p. 29.
2. *Ibid.*
3. *Ain II* (Jarrett) p. 139.
4. J. Mavar, *Economic History of Russia*, Vol I. p. 53i.
5. *Cambridge History of India*, Vol. I, p. 208.

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writes : The simple system of village economy is entirely based upon the dealings of the village mahajan, whom it is some times the fashion to decry as a usurer but who is often the only thrifty person among an improvident population. If his rate of interest is high, it is only proportionate to the risks of his business. . . . .,[1] As the Muslim prohibits taking of interest, the village money-lender who deals chiefly in grain and in spices, must have been from amongst the Hindus. However the banjaras and other traders were working as middle men to carry produce over long distances on the routes mentioned before.[2]

1. W. W. Hunter, *Indian Empire*, p. 65.
2. Sarkar; *Studies in the Mughal Empire*, p. 286-7. Sarkar mentions the following routes : 16th & 17th centuries.
   (i) From Lower Bengal & Orissa by ships to Coromondal coast and also to Gujrat & Europe.
   (ii) From Pegu and Spice Is to Bengal and Orissa coast and Masulipattam and back to Japan and China.
   (iii) From Masulipattam to other parts of India and to Near East.
   (iv) Kanara and Konkon to Jedda, Mocha in Arabia, Egypt, Persia, Zanzibar and Far East specially the Malay Peninsula.
   (v) Gujrat Coast to East Coast, Persia, Arabia, Egypt, and Europe.
   (vi) Lahore to Kashmir, Afghanistan, Central Asia, Persia by land. Also through Multan through Bolan Pass and Qandhar. In 1615, 14000 and in normal years 3000 camels passed by this route.

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Chapter 9

LOCALISATION OF INDUSTRIES

1. Nature of Industires in General

India is known to be a country of villages and hamlets with the village community as the most dominant feature of the economic life. As pointed out in the previous chapter, the towns in the Mughal period, as even today, were not influential for a correct representation of the general life of the country. Whereas on the one hand there were self-contained and self-supplying villages with little contact with each other, there were on the other hand, towns and cities, mostly the seats of Imperial and provincial governments, or of a feudatory chief, with a large retinue of courtiers and nobles dotted throughout the Empire, joined together by roads mostly unmetalled to be used on government business, military needs, or by merchants, home or foreign. As such the industries of the period can be considered under two heads *viz.* (i) Rural industries, (ii) Urban industries. The predominance of agricultural economy meant that the proportion of urban population in India at that time was small. The urban population was not more than 10 percent of the total population and even many of the so called towns were merely overgrown villages.,[1] Industries were not the cause; they were rather the effects of other influences, the existence of the court being the one. The urban industry could not exist independently of the courts, and as such their withdrawal meant its collapse. What was true of Lucknow and Tanjore in the 19th century, can with equal emphasis be applied to towns in the period under review. Lucknow was annexed in 1856 A D.; the court of the king naturally disappeared. Mr. Hoey rightly paints the picture :

"It is believed that for a few years after the mutiny the population of Lucknow suffered a sudden decrease. All persons connected with other parts of the province and of India generally whom accidents of service had brought to Lucknow, left it. That section of the population who were attached to the city by special condition of trade under native rule, also left,"[2] The same happened in the case of Tanjore. The Madras Census Report of 1891 adds :" There can be little doubt that (Tanjore) has declined since the death of the lst Rajah in 1855. The existence of a court, though a titular one, exerts a considerable influence upon the population of the town in which it is held, as it attracts numbers of all kinds of professions."[3]

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1. D. R. Gadgill, *Industrial Evolution of India*, p. 6.
2. W. Honey, *Monograph on Trade and Manufactures of India* II, p. 29 (1880).
3. Madras Census Report, 1891.

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Such industries as were necessary to supply the needs of the farmers were pursued in the villages themselves. It has been said that four things are required to found and establish an industry successfully in any country—men, money, materials and markets. The villagers grew their own food, made their own implements, moulded their own domestic vessels, its priests lived within its walls or its precincts, they did without a doctor, and looked to the outside world, for salt, spices, fine cloths and coins in which they were to pay their land revenue to the government. The village artisans were the servants of the village community, themselves owning plots of land and rendered certain services to the farmers. Weavers and goldsmiths were nowhere servants. Village artisans followed hereditary professions, some occupations being based upon castes like those of the carpenters or the blacksmiths and they were not required to face external competition. Their organisation was crude.[1]

The urban industries were confined to luxuries. They included textiles—cottons, silks, woollens, embroidered silks, ivory work, wood carving, bronze and brass work, perfumery, wire and tinsel work, gold and silver work and furniture making. They were better organised and confined to better class of products. Division of labour was of a crude nature. Very often there were state karkhanajats as already referred to under Chapter III. In the villages there were no luxury industries, but in the towns, there were always some industries of rural type existing side by side with the luxury industries. A certain amount of coarse weaving and ordinary pottery are examples on the point. But even in these, the urban industry was better organised. Availability of the source of raw-materials and skill required were in many cases the grounds of the existence of some industries. These included smelting of iron, cutting of diamonds, specially in Golcunda, refining of gold and silver silk weaving in Qasimbazar and Kashmir, woollen carpets in Lahore and other requisites of the aristocracy like the manufactures of bangles of glass, paper, salt and salt-petre etc. All these were in the nature of handicrafts. Though these were better organised, the advent of Industrial Revolution was first to hit them hard.

"At a time, when the West of Europe, the birth place of modern industrial system was inhabited by wild tribes, India was famous for the wealth of her rulers and for the high artistic skill of her craftsmen. And even at a much later period when merchant adventurers from the West made their first appearance in India, the industrial development of this country was at any rate not inferior to the more advanced European nations.[2]

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1. Gadgill, *Industrial Evolution of India*, p. 46.
2. Industrial Commission Report, 1916-18, p. 6.

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Speaking of the development of India's metallurgical industries, Sir Thomas Holland, the leading authority on mineral resources, said: "The high quality of the native made iron, the early anticipation of the processes now employed in Europe for the manufacture of high class steel, and the artistic products in copper and brass gave India at one time a predominant position in the metallurgical world."[1] While allowing for variation and exaggeration in such statements as are available, adds R. Palme Dutt, "It is noticeable that travellers in India in the 17th and 18th centuries reported a general prosperity also in the villages, which contrasts strikingly with conditions today"[2] Moreland in his "India at the Death of Akbar" and also "From Akbar to Aurangzeb" accumulates all possible evidence to prove that poverty prevailed in India of the 17th century. But when he comes to summarise, he could not help remarking : "It is improbable that for India, taken as a whole, the gross income per head of the rural population has changed by any large proportion; it may possibly be somewhat smaller, more probably it is somewhat larger than it was but in either case the difference would not be so great as to indicate a definite alteration in the economic position."[3] Moreland is of opinion that as regards primary production, agriculture yielded the same average income as now; forests the same, fisheries somewhat more and minerals definitely less. The average appears to be considerably increased in the cases of manufactures like weaving, transport production, handicrafts and ship-building. Silk weaving shows a decline.

Tavernier in the 17th century found rice, flour, milk, beans and other vegetables, sugar and other sweetmeats, dry and liquid in abundance in the smallest villages.[4] Manucci, the Venetian who was a physician to Aurangzeb, emphatically spoke of his observations about the wealth and prosperity of Bengal, its prodigious riches transported thence to Europe, and its products of silks, cotton, sugar and indigo, fruits, pulses, grains, muslins and cloths of gold, mixed with silk. Like-wise Bernier who twice visited Bengal wrote of his observations before the break up of the Mughal Empire : " . . . it is richer than Egypt. It exports in abundance cottons, silks, rice, sugar and butter. It provides amply for its own consumption of wheat, vegetables, grains fowls, ducks and geese, immense herds of pigs and flocks, goats and sheep and fish of every kind," He found a number of canals from Rajmahals to the sea cut in bygone ages for irrigation and navigation[5].

2. Agriculture

Agriculture was the chief industry of Mughal India as it is today and the chief source of revenue. The main features of agricultural system and the characteristics of the crops grown in different parts

1. Holland, T. H., *The Mineral Resources of India-Report*, 1906.
2. Palme Dutt, *India Today*, pp. 21-22.
3. Moreland, *India at the Death of Akbar* (1920) pp. 186-7.
4. *Travernier*, I. P. 238. (Vol. I Oxford Univ. Press 1925).
5. Bernier, Quoted by Sir William Wilcocks, *Lectures on the Ancient System of Irrigation in Bengal*, Calcutta University, 1930, pp. 18-19. *Memoirs of Manucci*, Extracts by F. Catrou, p. 1709.

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of the country differed little from those of today. Like the Sultanate period, the main source of our wealth was agriculture. The natural fertility of the soil in most parts, copious rainfall and irrigation facilities provided since the early times, and systematical reinforcement by Firoz Tughluq, combined with the industry of our peasants led to the production of so much of corn that it not only supplied the needs of the country but was also exported abroad. Rich crops such as cotton, sugar cane, lintels, oil seeds, poppy etc., were produced on a large scale. Fruits of numerous variety were produced in many parts of the country.[1]

Before we discuss the increase of agriculture, let us pause a little to study the system of land tenures, irrigation facilities and the condition of the farming classes under the period.

Though enough light has been thrown upon the system of land tenure in Chapter V, further details are adduced to complete the topic. The Mughals did not introduce a new revenue system— a system consistent with the Islamic and the Hindu Law was adopted. The Hindu Law allowed a certain proportion of the produce 1/6th, ¼th or 1/3rd, to the State; and under Islamic Law, a conqueror was authorised to dispossess infidel occupants, and distribute their lands among the followers, but if permitted was entitled to a share of produce to be assessed and collected as he thought best, to be applied for the benefit of Muslims in general, or in practice as the revenue of the state which he established. Thus the ordinary Indian peasant was not affected by conquest, he remained on the land but became under a new master who might possibly increase his burdens or more probably fall in for the present with the arrangements found in existence.[2]

Though the Musalman conquerors claimed in theory an absolute right of property in the soil, the right was in practice "restrained in conformity with the ancient law and usage to some fixed proportion of the produce collected from village or small zamindars or separate ryots. Their exactions were indeed oppressively increased, but the ryot was rarely removed, and he considered the land-lord as his own, subject to the payment of a certain share of produce varying according to circumstances. The Jagirdars could be ousted unless the grant was hereditary.[3]

There were no capitalists. The Jagirdar was liable to be removed at the pleasure of the King. As such, the Jagirdars being not sure of the actual duration of their jagirs, stooped to commission of extortion to earn as much as possible in the time at their disposal.[4] Bernier maintains that the lands were uncared for as the ryots were always afraid of the tyrant's rapacious hands. A decline of estates was common.[5]

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1. A. L. Srivastava, *The Sultanate of Delhi*, pp. 492-3.
2. *C. H. I.* Vol. IV Chap. XVI, p. 453.
3. William Erskine, *History of India, Vol.* I p. 529.
4. *Ibid.*, Part II p. 540.
5. *Bernier Travels*, Pt. I., p. 227.

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The land policy under Akbar was regulated by Raja Todarmal and was called 'Zabt' according to which rates were fixed in cash. The share of the crown was 1/3rd of the gross produce. The charge was on cultivation and not on occupation. A direct relation between the state and the peasant was established, farmers were to be treated well and vexatious taxes were to be removed.[1] The collectors used to get 8 percent as their collection charge. The classification of land has already been discussed under Chapter V. Nizamuddin Baxi was ordered that more new lands should be brought under cultivation.[2] In 982H. an order was promulgated to improve and extend cultivation in the waste lands, over hills, in jungles, by means of rivers, irrigation through reservoirs and wells.[3] It is not stated in the Ain how the comparative fertility of the fields was ascertained. Troops were paid in kind. Abulfazl's assertion that the assessment was lighter than that of Shershah is wrong as Shershah too charged only ⅓ of the produce.[4] Advances were made to the needy cultivators on proper security and were realised on easy instalment basis.[5]

Under Jehangir the land policy of Akbar was followed. The insecurity of tenure was removed by passing the following order: "The officials of the crown lands and the jagirdars (grantees) should not forcibly take the ryots' lands and cultivate them on their own account.[6] But he allowed summary settlements. "Those lands which are let to the King 2/3rd of the profits; those which he giveth in fee 1/3rd remaineth to the King. In the world there is no more fertile land than in some great part of his dominions.[7] At times the greed of the King and the unsympathetic attitude of the officials killed enterprise amongst the peasants adversely affecting productivity of the land. Says Pelsaert: "the land gave an extraordinary yield, if the peasants were not so cruelly and pitilessly oppressed in villages, owing to some small shortage of produce. If they are unable to pay the amount of revenue, farms are made prize, so

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1. These regulations mentioned by Abdul Qadir Badayuni (p. 51b) were just after the lines of Shershah which aimed at the prosperity of the cultivators. Shershah believed in the maxim '*Zaraut muyassar na shawad, ta anke raiyat sahuliat na kunad*' "Agriculture cannot prosper until the subject-people (ryots) are comfortable." However this did not imply leniency in the payment of government's share fixed. "*Baqaya diwani mujib-i- wirani pargana wa sabab biyan-e-adawat miyan-i-raiyat.*" "The land revenue remaining unpaid is the cause of the pargana's destruction." (*Taufa-i-Akbarshai* p. 18.)

2. *Muntakhab-ut-Tawarikh alias Tarikh-i-Badayuni*, Abdul Qadir. Per MSS. (S. B. U.) p. 51b; Elliot Vol. V. p. 382.

"The Collectors were called krories and named Adampur, Ayatpur, Shettipur after the name of various patriarchs."

Akbar's regulations were not obeyed and a great portion of the land lay waste and the krories and the muqaddims enjoyed. The wives and children of the ryots were sold and scattered abroad and every thing was under confusion. But Raja Todar Mal punished the krories if matters were brought to his notice.

3. *Ibid, Akbar Nama.* Abulfazl. Per MSS. (S. B. U.) p. 58; *Khulasat* (per MSS). (S. B. U.) pp. 541-2; Stuart Elphinston, p. 102.

4. *Ibid.*, p. 58. 5 *Ibid* p. 58. Stuart Elphinston, *Hist. of India* p. 541.

6. Moreland, *India at the Death of Akbar*, p. 129.

7. William Hawkins : 1608-1613.

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to speak by their masters and governors, and wives and children sold off on the pretext of a charge of rebellion. Some peasants abscond to escape their tyranny and take refuge with rajas, who are in rebellion and consequently the fields lie empty and unknown, and grow into wilderness. Such oppression is exceedingly present in the country".[1]

Shahjehan followed the same policy as was followed by Akbar with slight variations. The one was the extensive system of farming the revenue for various purposes, the other was the scale of remuneration and duties of the krories who were to receive 10 per cent on the collections and also to act as foujdars invested with full police powers. This meant great oppression of the poor peasants and a great disturbance to the land policy.

Under Aurangzeb trade was experiencing a downward trend and expenditure on the military was adopting an upward trend. Hence land was rack-rented and labour sweated. Though the policy was the same as initiated by Akbar, the government demand was enhanced from 1/3rd to 1/2 of the gross produce. The Kharaj-i-Muazzaf system of Aurangzeb gave a license to the unscrupulous officials to treat peasants very mercilessly. This, as pointed out before, was the system under which a peasant compounded with the authorities for the land in his occupation by annual cash payments, quite independent of the income which he might draw from the land. The commission of the krori was reduced to only 4 per cent, and he compensated himself by extortion from the poor cultivators. Famines became too common as discussed before. Thevenot says : "Even human flesh was sold in bazars of Debca, about 40 leagues from Broach.[2] The land revenue was much increased not as a result of enhanced production but by higher rates of land revenue and other oppressive extortions; and various road duties were exempted.

Aurangzeb relied on Islamic Law. "The detailed provisions in Aurangzeb's orders leave no room for doubt that in the opening decade of his reign, the administration was seriously concerned about the scarcity of the peasants and their readiness to abscond, topics which do not emerge in the literature of Akbar's times.[3] Francois Bernier speaks in clear terms about the debasing conditions of extortion about which no one heard any complaint. The Kadis and judges could not give due justice. Near the capital towns like Agra or Delhi or big ports the sad abuse of the royal authority was not acutely felt as in such places gross acts of injustices could not easily be hidden.[4]

The details as regards the actual crops produced have already been mentioned.

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1. Moreland and Geyl, *The Remonstrantie of Fransisco Pelsaert* 47.
2. Maria Graham ; *Journal of a Residence in India*, p. 15.
3. *C. H. I.* Vol. IV. p. 471.
4. *Bernier Travels*, I p. 25.

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Increase of Agriculture

The Ganges plain is one of the most ancient zones of human settlement and culture. It is true, in the period under review, there was great expansion in agriculture and population owing to an era of comparative peace and consolidation ushered by the Mughal administration. But such development was confined to only a few centres of human habitations in and around Doab chiefly round Delhi, Agra, Ajodhya, Prayag, Jaunpur, Benares, Sasram, Patna, Rajmahal, Burdawn, Behrampur and Tipperah. During Akbar's reign practically the whole of the area fit for cultivation was actually cultivated in the Upper Ganges Valley. In the eastern zone, however, the cultivated area was rather small. Dr. Radha Kamal Mookerjee gives interesting figures of comparison of the reigns of Akbar and Aurangzeb to prove increase in area under cultivation :

AREA IN BIGHAS (,000 OMITTED)

Provinces	Akbar's time	Aurangzeb's time
Allahabad	573	1553
Benares	36	453
Jaunpur	870	5451
Chunar	106	740
Ghazipur	288	1733
Karrah	447	1411
Oudh	2796	4383
Gorakhpur	244	5304
Bahraich	1823	2752
Khairabad	1987	6546

Along with the increase in the area under cultivation, we also find considerable increase in the amount of revenue realised. It is true, by mere increase in the land revenue we would be wrong to estimate increase of area as during Aurangzeb's reign the proportion of government's share was enhanced from 1/3rd to 1/2. Besides in the reign of Aurangzeb, there were other vexatious taxes upon the ryot. The following figures speak for themselves :

	Akbar	Aurangzeb
Number of Sarkars	13	13
Do Mahals	13	12
Area (000 omitted) in bighas	27867	55829
Revenue (000 omitted) in dams	5447	10517

The increase of cultivation was apparent more where there were few forests. Increase in the facilities of irrigation, introduction of dry-farming methods and in many cases scientific manures and im-

1. *U. P. Journal of Historical Society*, (Dec. 1941) Vol. II pp. 41-3.

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proved varieties of seeds have been responsible for the increase and improvement in crops like sugarcane, tobacco, tea and jute. These changes belong to the 19th and the 20th century and as such no justification is needed for their discussion.

Irrigation

The proper care of irrigation has been a matter of prime importance since very early times. The Mughals too paid sufficient attention on irrigation. Wells, tanks, reservoirs and canals were all utilised as means of irrigation. Previously reference has been made to Babar's graphic description of irrigation method from wells which is true to this day.[1] Wells were common throughout North India and Or ages have been utilised in the same way. And in the present century also there is no difference. Garcia da Orta speaking of tillage in the Deccan says : "They do not till the land with manure and labour as we do. They sow on the face of the earth with very little tillage."[2] The Imperial Gazetteer describes this country as a field of "black soil requiring only one ploughing in the year, being seldom manured." (Vol. XI. p. 308). "The system has been maintained intact even to this day. Even in his short reign, Humayun's attachment to the agricultural problems is apparent by his reserving one important department out of his four divisions as Khaki (land affairs).[3] The same authority eulogises him adding. "He comforted and tranquilised the tenents upon whose exertions and labours, the management and existence of the world depends. . . . ."[4]

Akbar's lake at Fatehpur Sikri which was 7 kos. in circumference was constructed for irrigation purposes. Extending from Sikri to Bharatpur, marks of its embankment are seen even to this day. "In the 22nd year of his reign when Akbar was returning from Ajmer, it was brought to his notice that the country was lying waste owing to the bad condition of reservoirs. His Majesty himself visited the neighbourhood and had the reservoirs cleaned immediately."[5] Tavernier saw numerous lakes of this kind in Golcunda in which water was collected for irrigation purposes.[6] Berar followed well irrigation though their digging was costly. The Jagirdars also paid similar attention to irrigation in their domains. Abulfazl records that many wells were dug for the benefit of men and improvement of the soil, and that the foujdar was to store for himself a goodly reward in the making of

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1. Memoirs of Babar, *A New Translation of Babarnama incorporating Leydon and Erskine* (1826) by Annette and S. Beveridge, London, Luzac & Co. pp. 484-6; Purchas I, IV, pp. 431, 519.
   Moreland, *India at the Death of Akbar*, pp. 101-2.
2. *Garcia da Orta*, p. 308.
3. Khwandamir, *Humayun Nama*. Per Text p. 48 Eng. Tr. p. 35.
4. *Ibid.*, Per Text. p. 25; Eng. Tr. Beni Prasad p. 20.
5. Abulfazl, *Akbar Nama*, Pt. III. Per Text p. 220; Tr. pp. 308-9.
6. *Tavernier's Travels*. I. p. 121.

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reservoirs, wells and water courses.[1] Tarikh-i-Farishta makes a reference to wells, yards deep in Gujrat with little water. Camels were commonly used to draw water out of wells there. Owing to the deficiency of water, agriculture suffered a great deal.[2] The attention of Shahjehan to Agriculture is clear from the fact that a pargana which in Akbar's time yielded only three lakh dams, yielded 7 lakhs. This must have been due to improvement in the means of irrigation.[3] partly also, besides enhanced rate of revenue and abwabs as already referred to in the foregoing pages. Firozshah's canal which branched off from the Jumna in the pargana of Khizrabad was repaired by Shahabuddin Khan, the governor of Delhi in the reign of Akbar, and the canal was known as Nahr-i-Shahab. For want of repairs it did not work. When Shahjehan built the Delhi Fort, it was repaired and a new channel was excavated to the regal residence 30 kos distant. Being thus prolonged it was called Nahr-i-Bahisht[4]. This extension of canal in Delhi is called 'Nahr-i-Faiz'. Shahjehannama describes the canal in these words, "This canal is not less than a river. Alimardan Khan, an Umrao of Shahjehan dug it 100 karoh away from Delhi from the Jumna at Mukhlispur. This canal rounded 90 quarters of Delhi city besides the fort. It goes through Delhi Chowk, the Chandni Chowk, Chowk Saadullah Khan, Paharganj and Ajmeri Gate etc. Owing to its seepage, local wells are full in the months of winter. They are then closed. In the months of summer these wells are opened and the water is used for drinking and other purposes".[5]

In the 9th year of his reign Shahjehan is said to have encamped on the bank of a lake in the country of Juhar Singh Bundela, which the author of Mulla Khas tells us, was the most famous of the 300 similar lakes in that parganah.[6] In Kashmir, Akbar had seen a lake 30 Kos in circumference. Canals were constructed from it for irrigation wherever required. About the Western Jumna Canal Akbar had issued a Sanad.[7]

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1. *U.P. Journal of Hist. Research*, Vol. XIX Pt. II. Dec. 1941. Dr. Radha Kamal Mookerjee : *Com. History*, 1600-1800 p. 54.
2. *Tarikh-i-Farishta* : Mulla Md. Qasim. Per Text, p. 420.
3. Rai Baharmal Bindraban, Per MSS. (S.B. U.) p. 165.
4. Inayat Khan, *Shahjehan Nama* : Per MSS. (S.B.U.) p. 26; *Elliot* Vol. VII. p. 85.
5. *Ibid.*, p. 26a.

Gokulchand, *Zeb-ut-Tawarikh*: History of the Mughals in Poems Per MSS. (S. B. U.) 1850. (Illustrated) It adds :

"Rawan dar Shahr nahr-e-rashk Kausar.
Chun ab-e-Khizr abash ruh parwar.
Dau tarf-e-nahr az mewa darakhtan,
Rawan dar saya ba aram insan."

"In the city flows the canal, the envy of Kosar (a canal in the heavens); Its water is like water of Khizr (elixir) and refreshing. On both sides of the canal, fruit trees have been planted in the thick shade of which the passengers can pass in comfort."

6. *Terry*, p. 299-300.
7. J. A. S. B. 1846. p. 213.

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In the reign of Aurangzeb, Khulasat mentions, one third of the country's irrigation was carried on by canals.[1] In one of his Farmans, Aurangzeb instructs his krories to repair the old and disused wells and sink new ones.[2] Aurangzeb instructed Governor of Gujrat to do all that he could to improve agriculture in his part of the country. As Aurangzeb was engaged in Deccan warfare, he could do little to improve irrigation facilities, though the revenue of his times had far increased as shown in the following chart, which increase as already noted, was due to the excessive abwabs and increased share of land revenue (half of gross produce instead of 1/3rd).

REVENUE OF THE MUGHAL EMPIRE AT 12 PERIODS : 1593-1707[3]

No.	Mughal Emperors	Authority	Land Revenue	Revenue from other sources
1.	Akbar 1593	Nizamuddin Ahmad (Not for all India)		£32,000,000 £10,000,000 £42,000,000
2.	Akbar 1594	Abulfazl	£16,574,328	
3.	Akbar 1594	Official Documents	£16,582,440	
4.	Akbar 1605	Indian Authorities quoted by De Laet.	£17,450,000	
5.	Jehangir (1609-11)	Cap. Hawkins	..	£50,000,000
6.	Jehangir 1628	Abdul Hamid Lahori	£17,500,500	
7.	Shahjehan (1643-49)	Do ,, ,,	£22,000,000	
8.	Aurangzeb1655	Official Documents	£26,743,970	
9.	Aurangzeb1670	Do net gross	£24,056,114 £35,641,431	
10.	Do 1695	Gemelli Careri	..	£80,000,000
11.	Do 1697	Manucci (Catrou)	£38,719,400	£77,438,800
12.	Do 1707	Ramusis Net	£30,179,692	

1. *Khulasat*, Sujan Rai Per MSS. (S. B. U.) p. 53b.
2. *Mirat-i-Ahmadi*, Per MSS. (S. B. U.) p. 420. (Farman in the name of Bahadur Khan alias Khan-i-Jehan Khan 1077 H. Sarkar, *Mughal Administration* p. 217.
3. W. W. Hunter, *The Indian Empire*. p. 242 (Reproduced from Edward Thomas, Revenue Resources of the Mughal Empire (1871)

N. B. The revenue figures given in W.W. Hunter's "Indian Empire" were revised by Mr. Thomas personally from the material available to him. In his book" Revenue Resources of the Mughal Empire, he gives the following figures :

Period	Revenue in rupees	No.
1594 Akbar	14,19,09,576	
1648 Shahjehan	22,00,00,000	1
1654 Aurangzeb	26,74,39,702	2
1656-67 Aurangzeb (Bernier's return)	22,59,35,500	3
1667-71 (Probably)	35,64,14,318	4
1697 Aurangzeb	38,62,46,802	5
1707 Aurangzeb	30,17,96,859	6

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Castes engaged in Agriculture : Their Skill and Government's Tyranny

Practically every caste, excluding those whose business has been commerce and industry and services, followed agriculture, which even in the modern times, is on the subsistence level. The farmers ate the same food which they do today, or perhaps better, as they had not to dabble in tobacco smoking, it being introduced in the times of Akbar, and to indulge in city luxuries of the present age. The price-schedule of Akbar's times in relation to the scale of wages, 2 to 7 dams showed that the standard of farmers of those days must be better than that of the farmers a few years back. The farming was deficient of capital. We have seen that in the times of Akbar, there were regular directions to advance money to the needy farmers on security, to be realised on easy instalment basis. Again Jauhar speaks of how peasants near Lahore were accustomed to give their wives and children in pledge to the indigenous bankers for money advanced on account of revenue collections. When English merchants went in the villages near Agra to buy indigo, the practice of distributing advance money was common. Cash payments were to be made as the farmers were moneyless. In the 16th century a large number of farmers were landless as in the present century. Owing to the tyranny of the officials and Kharaj-i-Muazzaf as already pointed out, the farmers were unwilling to carry on their profession and were in many cases, absconding and the state took severe measures to force them to cultivate.[1] From Akbar to Aurangzeb attempts were being made to develop and encourage agriculture by the district officers, Amins or Amalguzars. Inducements were given by way of reward but generally pressure was exerted on the bulk of the peasantry. In Rao Baharmal's eulogy on Shahjehan we read that the imperial expenditure multiplied fourfold, yet treasure was amassed at an unprecedented rate, because the revenue rose very largely owing to the emperor's attention to improve agriculture and collection of the revenue of the state. "The imperial devotion to the improvement of agriculture," says Dr. Radha Kamal Mookerjee, "must be considered in the light of the instructions given in Aurangzeb's farman: "At the beginning of the year inform yourself so far as possible about the condition of every peasant, and whether they are engaging in agriculture or abstaining from it. If they have the means to cultivate, ply them by

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In Tavernier's Travels, edited by Archibald & Constable, a note on pp. 458-9 is given in explanation for the above increase and decreases of revenue figures which is based on pure historical facts. The same is reproduced below :

Nos. 1, 2, Increases due to gradual consolidation of Akbar's conquered provinces No. 3 Decrease due to effects of rebellion in the richest province of Bengal in partial revolt for several years. No. 4 & 5 Returning prosperity and conquest in the Deccan, adding new province to the Empire. No. 6. The Mughals losing, Marattas levying Chowth and Sardeshmukhi, and the disdaining power of the King in his old age.

(The explanation is derived from A. C. Lyall, *Berar Gazetteer* Bombay) 1870.

1. Moreland, *India at the Death of Akbar*, c.f. pp. 130-31

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inducements, and encouragements, and show them any favour, they may desire. But if it be found that in spite of the means to cultivate and of a favourable season, they are absconding from cultivation, then you should urge and threaten them, and make use of the force of the whip (zarab)."[1] Thus it is evident that the use of force, beating and whip were also resorted to for the extension of cultivation. The efficiency of the district officers concerned must have depended upon the immediate increase of the land revenue.[2] Manucci corroborates the above view. He adds: "The people (farmers) are always moving in order to avoid hardship." Careri, an Italian traveller who visited India in 1697 noted that the farmers "were obliged to give three parts of the crop every year to the King and some times they were ousted from the land they were tilling and given new land to be brought under cultivation".[3] Bernier in his letter to Colbert also maintains the same view. He writes." The ground is seldom tilled except under compulsion and lands lay waste for want of peasants, many of whom died through ill-treatment, and fled to towns, the camps or some dominions of some Rajas."[4] This was the condition of our farmers during the days of Aurangzeb.

(*i*) *Textiles.* The textile industries under the period consisted of cottons, woollens and silks. Amongst these, the cotton industry was the best. The handicraft was spread over the whole country. The Muslins of Dacca were the finest and the best known. "It was this that a Manchester manufacturer, when he could not rival its fineness said depricatingly that it was but a "shadow of commodity". In 1880 muslin was produced in Dacca but the quality had deteriorated and the industry was rapidly dying out. This industry depended entirely upon the existence of the Court.... A piece of the finest muslin, 20 yards length, and one yard width could pass through a finer ring and required 6 months to manufacture it."[5] Such a costly thing could prosper only with the patronage of a court due to fairly regular orders, without which the industry was doomed. Besides, Dacca muslins were manufactured at many other places as detailed before.

India has been a home of cotton trade from the earliest times. Its cotton, otherwise known as white wool, was well known to the ancients and cloth was famous in the West in the days of overland routes. The name calico and the fine woven goods of Calicut and the product of the Dacca hand-looms are still remarkable as the finest muslin, human skill can produce. Ain makes a mention of cotton products of Khandesh, the stuffs called Siri saf, Bhiraun coming from Dharam-

1. *U.P. Journal of Hist. Soc.* No. XIV. Pt. II Dec. 1941 p. 50. Sarkar, *Revenue Regulations of Aurangzeb*, 1906 J. A. S. B. Bk. II.
2. *Ibid.*
3. Careri, *A Voyage Round the World Bk. II.* p. 247.
4. *Bernier Travels, I, p.* 205.
5. T. N. Mookerjee. *A Handbook of Indian Products; p.* 1883, G. D. R, Gadgill : p. 34.

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gaon, Gujrat manufacturing stuffs worked with gold threads of the kinds of Chirah, fotah (a partly coloured cloth used for turbans), Jamawar (a kind of flowered woollen stuff well-known as khara). Khara, velvets and brocades were skilfully manufactured there.[1] Other authorities mention Kinkhab, Dopatta, Badla, Kurta, embroidered cloth, kinari, sarpech, pagri, and tanzeb in Gujrat, Khasa in the Deccan, and chicken in Lahore and Lucknow.[2] In Aurangzeb's times Broach was inhabited by weavers and manufacturers of cloth. "Broach baftas were famous all over India, the country producing the best cotton in the world."[3] Orissa and Burhanpur also produced cotton cloth.[4] Burhanpur calicuts were even exported to Persia, Turkey, Muscovia, Poland, Arabia, Grand Cairo of which women made veils, some painted cloth with various flowers of which women made scarfs, coverlets for beds and handkerchiefs. A different variety of linen was manufactured with a stripe or two of gold and silver which was not dyed; 12 to 15 inches at the end they fixed tissues of gold, silver and silk, intermixed with flowers, both sides of which were equally fair. The bales containing 15 to 20 lbs. cost Rs. 100 to Rs. 150. This cloth was worn for scarfs and veils by nobility specially in Turkey and Persia.[5] The same authority praises Calicuts of Sironj "so fine that you shall appear naked by putting it on. Merchants were not permitted to transport it. The governor sends it on to Lords and the Mughal seraglios. Women of harem make their garments in hot weather and kings are glad to see them dance in this cloth garments."[6] In addition to cloth, certain miscellaneous goods were manufactured from cotton. We read of cotton carpets, coverlets, ropes, bed-tapes, and some other commodities, and the aggregate out-turn was doubtless substantial, but material is not available to estimate their amount. Dyeing was a subsidiary industry. "Coloured goods were in large demand, especially for the countries which now form the province of Burmah; the indigenous vegetable dyes were used, and we may take it that the processes followed were in substance those which are still familiar or which have recently been displaced by the products of European factories".[7] Indian looms had a monopoly of home market for cotton goods.

According to Sir Jadunath Sarkar cotton fabrics could be classified into five categories, *viz* .(i) white ordinary (ii) coloured ordinary, both plain in texture and known in England as calicoes, (iii) flowered (iv) chintz or printed cloth, and (v) muslin. Course white cotton cloths were exported from Lower Sind, Bengal and Orissa and other

1. *Ain II* (Jarrett) p. 247.
2. *Chahargulshan*, Chattarman. Per Mss. (S. B.U.) pp. 45, 58; *Zabdut-Tawarikh* (Per MSS) p. 429 : *Khulasat* pp. 34, 44; *Pinkerton Voyages* Vol. VIII. Alexander Hamilton (1688-1723) p. 307.
3. *Pinkerton Voyages*, A. Hamilton VIII p. 314.
4. *Ibid.*, Vol. IX 406. Vol. VIII p. 416.
5. *Tavernier Travels* : I p. 29.
6. *Ibid.*, p. 32.
7. Moreland, *India at the Death of Akbar*, pp. 183-4.

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places on the East coast of India to many countries of Southern Asia and the Indian Archipelago, and in small quantities to Japan. Towards the end of the 17th century a market was found for them in England also. "As for cotton cloths worked in gold and silver, Benares and Ahmedabad were the chief centres of their manufactures and from those places they were exported to all parts of the world."[1] Bidar in the 16th century was famous for this industry. At Agra the industry was fostered under royal patronage. The chief centres of its production were, besides Dacca and Qasimbazar, Sironj in Malwa, Broach, Navsari and Baroda in Gujrat. Masulipattam was famous for its chintz which were used to decorate the palace walls and the darbar-hall.[2] The screens were so beautiful that the "painted flowers looked like natural, as if the spectators were looking at a parterre in a garden."[3] Due to high local consumption in the palaces etc. the finer patterns were available in little quantities for export purposes. The chintz exported from St. Thome consisted of 'bimbast cloth' which was gilded with diverse colours which became still livelier by washing as observed by Caesar Frederick in 1580.[4] Industrially Malwa occupied the second place after Gujrat. The trade in this cloth was in the hands of the Armenian traders and Europeans also engaged themselves in this trade. These chintz were sold at 20 to 60 rupees the corge or there about.[5]

(*ii*) *Silk Industry.* The chief cause for the localisation of this industry was the ancestral skill of the craftsmen. The most famous were the choppas, bandanas, and corahs of Murshidabad, Maldah and other Bengal towns which were greatly in demand for export. The fine flowered brocade work was made at places like Benares, Ahmedabad and the fabrics in double-weaving of colours were produced in Poona and Yeola and other places.

Ain makes a reference to silken carpets and brocades, being extensively encouraged by state patronage. At another place mention is made of the manufactures of Khara, and undulated silk cloth, velvets, brocades and imitation of silk stuffs of Turkey, Europe and Persia. Though silk worms were reared in Kamayun Sarkar, the industry was not developed. Gujrat was famous for Kamkhabs and silk cloth, Orissa for silk, Lahore for silk thread and Tattah for Jamawars in cotton and silk. Allahabad and the Deccan were also manu-

1. Sarkar, *Studies in Aurangzeb's Reign*, p. 276.
2. *Chahar Gulshan*, Per MSS. p. 94b. *Khulasat* p. 25a; *Storia de Mogor* II pp. 83, 125; 424; Sarkar, *Studies* p. 278.
3. *Bernier's Travels*, I. pp. 270, 362, 403.
4. Hakluyat V. p. 402. quoted in Sarkar's Studies in Aurangzeb's Reign p. 278. *Tavernier for Sironj*, p. 29.
5. *Manucci* I. p. 68; Tavernier II p. 5; Raghubir Singh, *Malwa in Transition* p. 7; Sarkar, *Aurangzeb* V. p. 380.

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facturers of silk cloth of high class.[1] At Allahabad, silk was first stamped before allowed to be sold and so was linen. Speaking of the times of Aurangzeb, Alexander Hamilton adds: "In Tattah they manufacture silk called Cuttenee (Jamawars) and silk mixed with Carmenia called cabulleys."[2]

The silk industry was the monopoly of Bengal. Says Sir Jadunath Sarkar: "A great deal of the output was woven locally but enormous quantities were exported to Gujrat, Tartary and the territories of the Mughal Empire for weaving. At Surat they manufactured carpets of silk or silk and gold and silver thread. At Ahmedabad all kinds of silk stuffs were woven.... Benares was famous in the 17th century for the silk stuffs and silk embroidery as it is today."[3] Burmah imported silk cloths in large amounts as Buddhists are fond of wearing silk. By the end of the 17th century, Indian silk taffetas and brocades began to be sent to Europe. The East India Company brought experts from England and made distinct improvement in the dyeing of silk in Bengal. Though during Akbar's reign, silk industry was not prominent, at his death it had greatly expanded as the result of increased demand for silk goods. Of the period about 1600 A.D., it may be affirmed that the exports of manufactured goods was very small, that the home market was limited in size and that it was supplied largely by the importation of foreign goods..."[4] The improvement took place in the 17th century. Mixed goods was a special feature of the handloom weaving industry.

(*iii*) *Woollen Industry*. The industry has been discussed at length in chapter V under wool. The chief centres of this industry were Kashmir, Kabul, Agra, Lahore, Patna and Rajputana. Akbar had evinced keen interest in this industry, specially in the manufacture of shawls. Besides, Pattus of Kashmir were also famous and so was Pashmina cloth. Shawls of high quality were also manufactured there.[5] Wool was used both by the rich and the poor, unlike silk which was a luxury of the rich. Its stuff was generally rough. The price of woollen rugs was generally higher as compared to modern times as the "cheapest rug of wool would cost 10 dams which meant 46 pounds of wheat."[6]

(*iv*) *Tussar*. It was a speciality of Orissa and was extensively exported from the ports of the province. The early European travellers describe it as "cloth of herbs which growth amongst the woods," or "grass cloth looking like silk". It was exported from Bengal also and was cheaper than silk.[7]

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1. *Ain*, I. Blockman *p.* 11; *Ibid. II* (Jarrett) pp. 232; 283, Chahar MSS (S. B. U.) p. 45;
   Zabdut, Per MSS. p. 429;
   Khulasat p. 34 (Gujrat), Lahore 44; Orissa 31.
2. *Tavernier I* p. 58; Alexander Hamilton (Pinkerton VIII) pp. 306-7.
3. Sarkar, *Studies in Aurangzeb's Reign*, p. 279.
4. Moreland, *India at the Death of Akbar*, p. 172.
5. *Khulasat*, Sujan Rai Per MSS (S. B. U.) p. 49 b.
6. Moreland, *India at the Death of Akbar*, p. 176.
7. Sarkar, *Studies in Aurangzeb's Reign*, pp. 279-80.

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(*v*) *Hemp and Jute.* Hemp was grown in all the Mughal provinces as apparent from the assessment for revenue rates as adduced in the Ain and other contemporary works. It was grown over a wider area though not used for commercial purposes. It was a commodity of local consumption. It was used by the poorer people specially for sacking. "It is a kind of sack-cloth and was used in the Bengal district of Ghoraghat (Rangpur)".[1] The recognition of its industrial importance dates back only after the opening up of the Suez Canal. Enhancement in its value comparatively, removed it from the list of articles used by the poorer folk.

(*vi*) *Artistic Manufactures.* The urban industry of India, mainly in the nature of handicrafts producing luxury articles for the aristocracy, was mainly centred near the capital towns of the Provincial, the Imperial or the chief's head-quarters. These were the best organised industries of the age. Edward Terry noticed that many "Curios-boxes, trunks, standishes (pen-cases), carpets and other excellent manufactures, were procurable in the dominions."[2] The value of these lay in the skill of the artisan than in the cost of raw materials used. The market of these was determined by the requirements of the extravagant ruling classes whose demands were fluctuating. As such there was little opportunity for their expansion. Abulfazl speaks of skilful masters and work-men settling in India to teach improved methods of production. There were imperial workshops attached to the palace where skilled artists were engaged, who at times were made to work on the fear of lash as discussed before. Though the scope of urban industry was rather limited, it was well organised. Dr. Watson referring to the high art displayed in the time under discussion adds "There is no waste of ornamentation. Artistic standard was combined with utility". A Frenchman, Mr. Blanqui, when he saw the Indian section of the Great Exhibition of 1851, appreciatingly remarked : Les Indiens sont les francais de I' orient pour le genie industriel.'[3]

Ain refers to the manufacture of excellent swords, daggers, Jamdhars and Khapwah, bows and arrows in Khandesh.[4] Gujrat was famous for engraving, ring enamelling, painting, inkstands, boxes, gold-engraving, tinsel work, making of spears, bows and arrows and swords, and Lahore for chilkan, Sialkot (Koh-i-Juda) for dishes and candle-stand of salt and Kashmir for wood work, ivory work, Brampur (Burhanpur) for arms.[5] In Thattah, they made fine cabinets, wooden dishes and tables coloured with lac. Alexander Hamilton says : "There is a great consumption of elephant's teeth, for, it is the fashion

1. Moreland, *India at the Death af Akbar*, p. 178.
2. Edwardes and Garrett, *Mughal Rule in India*, p. 264.
3. *Boyle*, p. 534 quoted in Gadgill, *Indus. Evo. of India*, p. 33.
4. *Ain* II. (Jarrett) pp. 232, 252.
5. *Chahar Per MSS.* p. 54.
   Khulasat Per MSS. pp. 34, 39, 46, 49b.
   Tavernier's Travels I p. 29.

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of the ladies to wear rings of ivory from elbows to their wrists on both arms, and when they die, these ornaments are burnt with them."[1] Gold smiths workers in bronze and silver existed in all the provinces, and their capital towns. Highly priced carpets costing Rs. 1800/- were manufactured, besides large varieties of Jajams, shetranjies, baluch-is and silk mats. One of the Lahore factory carpets was presented to the Girdler's Company of London by their masters, R. Bell. Abulfazl, however, admits that the Persian carpets were heavy and in spite of state patronage the industry did not flourish.[2] Inayat Khan makes a mention of a costly lamp called "Gul Muhammadi" purchased at Rs. 10,000/- which was decked with rubies and jewels and costly jades and diamonds valued at Rs. 250,000 and the cost of the entire lamp was Rs. 3,50,000/-. This means that the labour charge must have been nearly a lakh of rupees before being sent to Medina. Great and elaborate was its artistic efficiency."[3] The peacock throne of Shahjehan was constructed at a huge cost of a crore of rupees in seven years (in 1634 A.D.). It was by itself a great wonder of the world and spoke highly of the artistic talents bestowed by the best craftsmen of the country.[4] This meant a great patronage to fine art.

Besides these, the inlay work in marble and filigree work were highly encouraged and developed. From Akbar to Shahjehan there was a golden period for the development of every type of Indian art.

(*vii*) *Miscellaneous Industries.* The work of jewellers, silversmiths, workers in ivory coral, amber or tortoise-shell, druggists, perfumers, and others received notice from the general population of the times but these catered for an exceedingly narrow market, "the extravagant ruling classes and a small and fluctuating demand on the part of foreigners: the commodities they produced were noteworthy and, in some cases, of artistic merit."[5] In the middle of the 17th century, in order to receive their livelihood, the wages being low, the artists rather tried to finish work with speed sacrificing minuteness of detail and fineness of art. Thevenot remarked that some of the craftsmen at Delhi were not unskilful, but they only thought of speed to earn the required means of subsistence. Sialkot was famous for chikan, worked with raw silk and embroidery and famous also for swords and daggers.

The products intended for the larger market included those of metal industries, wood work, leather goods, paper, potter's industry, building industry etc. Let us take them one by one.

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1. *Pinkerton* Vol. VIII. Alexander Hamilton 1688-1723 p. 309.
2. Edwardes and Garrett, *Mughal Rule in India*, p. 265.
3. Inayat Khan, *Shahjehan Nama Per MSS.* (*S. B. U.*) p. 206.
4. Abdul Hamid, *Badshah Nama in Elliot VII.* p. 24.
5. Moreland, *India at the Death of Akbar*, p. 160.
6. *Thevenot*, p. 140;
   Murtiza Hussain Bilagrami, *Hadiqul Aqalim* (Per Text) p. 149.

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(*i*) *Metal Industries.* Benares was famous throughout the country for brass, copper, and bell metal wares. Other important centres for this industry were Muttra, Nasik, Poona, Hardwar, Delhi, Lahore, Agra, Oudh, Ahmedabad and Dacca.[1] Utensils of every day use were made practically in every town and even in some big villages, not bigger ones, and of a better quality were only manufactured in cities on river banks having religious importance like that of the Ganges, or the Jumna etc., so that pilgrims might take the sacred water home. Other utensils required in worship were also manufactured. Many other metal crafts such as enamelling, damasceening and bidri work had reached a high standard. The damasceening work was chiefly used in ornamenting arms like shields etc. It was practised in Kutch, Punjab and Sind towns like Sialkot, Kotli, Lahore etc. The towns of Rajputana also excelled in all kinds of artistic work specially in enamelled jewellery. Stone carving was also carried on in Rajputana cities. There was a little division of labour existing in some industries *e.g.* wire manufacturing etc. In order to attain a particular fineness the wire had to pass through different sets of workers and labour was specialised, though of course imperfectly.[2]

(*ii*) *Wood-work.* Manufactures of ships, boats, carts, chariots etc., besides furniture have already been mentioned. Sandal wood-carving of Mysore and South Kanara attained prominence. The localisation of this industry was based upon the presence of raw material. The inlay work in marble at Agra was due to the nearness of marble quarries at Makrana in easy access.

(*iii*) *Leather Goods.* No mention of this industry occurs in the contemporary accounts. However, as hides were not exported, and leather manufactures not imported, it is easy to conclude that in the agriculturally developed regions, there must have been no dearth of hides. The manufactures of boots and shoes, saddlery, buckets for irrigation must have been practised locally. The Ain gives details of harness used in Akbar's times, but it is noteworthy that leather rarely finds a mention in the long list of articles used.[3] Saddles were chiefly made of cloth and halters of rope. The industry as a whole was less extensive than what it is at present.

(*iv*) *Paper Industry.* As higher education was confined to upper-classes, much paper was not manufactured. As late as 1625, Della Valle obtained a specimen manuscript written on palm-leaves. Pyrard tells us that the Portuguese at Goa imported their supplies from Europe, China, and Cambay ports.[4] Paper was handmade and used by foreign missionaries, offices, scholars and merchants. The Mughals had lot of correspondence to do and it was called "Kaghazi Raj." Paper was produced in Patna, Delhi, Oudh and Sialkot which was famous for three varieties, Mansinghi, Kharpuri, and Jehangiri. The best varieties came from Kashmir owing to the fostering care of

1. Gadgill, *Indus. Evolution of India*, p. 36.
2. *Ain. I.* (*Blockman*), pp. 143-7.
3. *Ain.* I. (Blockman) pp. 143-7.
4. Moreland, *India at the Death of Akbar*, p. 164.

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the imperial patronage. There was usually a hamlet of paper makers called Kaghazipura in the environments of most provincial capitals where the court was stationed for a long time.[1]

(*v*) *Pottery*. This was not cared for, and was on the same level as at present, in the villages as well as in the states and cities. A particular caste amongst the Hindus called "Kumhars" was chiefly engaged and carried on the profession from father to son. The industry is even today specialised and localised in their community. Porcelain was little used except by the Muslims and was imported from China.

(*vi*) *Building Industry*. Bricks, stones, mortar and lime and mud were specially used. The houses of the masses were made up of mud and reed and roofed with thatch and occasionally with tiles. The middle classes were rather insignificant in numbers and were against display. The upper classes lived in tents and palaces. As compared to modern standards, the consumption of bricks, stone and wood, was rather little amongst the masses.[2] At Agra, Delhi and othar provincial head-quarters, the state engaged a large number of masons, and the architecture and their efficiency is visible from the high artistic buildings and monuments of the period. Temples, mosques and serais, bridges and wells were also constructed by private individuals and those were of higher standards.

Babar was a shrewd but prejudiced critic of the art of building in this country as his memoirs repeatedly indicate.[1] Although he praises the remarkable dexterity of masons, specially the stone masons, he complains of the slip-shod manner in which they designed their structure" without regularity or symmetry," faults which would readily offend the taste of the Mughals, for strict formality and balance. In spite of this, he embarked on several building projects of a fairly ambitious order, as he states : "Six hundred and eight men worked daily on my buildings at Agra, Sikri, Bayana, Dholpur, Gwalior and Kiul. . . . ,"[3] Humayun found no time for buildings though he laid the foundation of Delhi.[4]

It was not until Akbar had occupied the throne for 8 years that the country became sufficiently settled to enable any large building operations to be completed. In his times the encouragement to

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1. *Tarikhi-i-Badayuni* (Per MSS) p. 1067;
   Khulasat (Per. MSS). p. 44 (*Sialkot—Kaghaz Mansinghi*)Patna (28) Delhi (22), Oudh (26);
   Chahar-Gulshan (Per. MSS) p. 26 (Kamayun);
   Hadiqual Aqalim, *Murtiza Hussain Bilagrami*, p. 93 (Per Text)
   Sarkar, *Studies in Aurangzeb's Reign*, p. 282.
   Pant, *Commercial Policy of the Mughals*, p. 92.
2. Moreland, *India at the Death of Akbar*, p. 165.
3. *C. H. I.* Vol. IV. p. 524.
4. Khwand Amir, *Humayun Nama*, p. 78;
   Eng. Tr. p. 53; *Elliot* V. pp. 124-6; *C. H. I.* IV p. 526; Tr. by Beni Prasad p. 53; *Elliot* Vol. V. pp. 124-6. *C. H. I.* Vol. IV p. 526;

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building-art began in right earnest. Labour was even imported from foreign countries. The bridge along the Gomti at Jaunpur constructed in 1564 was designed and carried out by workmen imported from Hazara. Agra and Lahore forts were the first notable efforts executed under the supervision of Qasim Khan, the Governor of buildings and ships.[1]

Upon the fort of Delhi and Tajmahal, Shahjehan spent 50 lakhs of rupees each. On buildings alone he spent Rs. 2½ crores.[2] The beauties of Taj have been preserved intact even today. The author of Zeb-ut-Tawarikh, as late as 1850 described it :

'Missalash hech rauza dar Jehan nest, Ba shanash hech bagh-o-bostan nest

"There is no Mausoleum of its type in the whole of the world like that there is no garden in the world."

Again describing the Delhi fort, the author quotes the lines actually inscribed in the Dewani-Hall, with a little parody :[3]

'Chun mashhoor ast Khuld-i-bar Zamin ast,
Hamin asto, hamin asto, hamin 'ast'

It is famous, the heaven is on the Earth;
It is this; it is this; it is this.

Maharana Raj Singh built Rajasamudra, 4 miles long, 1¾ miles broad at Rajnagar (Mewar). It took 14 years to complete. It is 55 feet deep and cost Rs. 39,64,223-8-0 in its construction and a sum of Rs. 65 lakhs spent in charity by weighing the Maharana in jewels and diamonds. In all the cost of the reservoir was Rs. 1,04,64,223-8-0.[4]

With Aurangzeb's accession to power, the course of the building art came to an end.[5]

Besides the urban industries, there were a number of rural industries in practically all the villages to meet the demand of the locality. The potter, the carpenter, the shoemaker, the village smith and the weaver were the common industrialists as they are today, some

1. Abulfazl, *Akbar Nama*. Per Text, Pt. II. pp. 246-7.
2. *Shahjehan Nama*, Inayat Khan Per MSS. (S. B. U.) p. 198. The following details have been mentioned:
(i) The cost of the buildings of Akbarabad (Agra cost Rs. 1 crore *and two* lakhs. This sum also included the cost of the Taj Rs. 50 Lakhs. The cost of the marble mosque in the fort was 6 lakhs.
(ii) Buildings of Shahjehanabad cost 50 lakhs (Delhi Fort) JamaMasjid 10 lakhs; Gardens of Lahore 50 Lakhs; Kabul buildings, city and fort 12 lakhs; Kashmir buldings 8 lakhs; buildings at Ajmer and Ahmedabad 12 Lakhs; Buildings at Qandhar and near abouts 8 lakhs.
3. *Zeb-ut-Tawarikh*, Gokulchand, Per MSS. (S.B.U.) 1850. Work in poems. Thoroughly illustrated.
4. Raj Prashasti, *Slab's inscription at the embankment of Rajsamand*, 24 in number. (Sanskrit). 16 slabs out of 24 described by M. Debi Prasad of Jodhpur in a Urdu pamphlet called : "Tarjuma *of Rajprashasti*". SlabNo. 9 gives description of the construction of the reservoir in which masons from all over India, specially Gujrat worked. The Nochoki stone carving is worth admiration. (p. 52. Newal Keshore Press, Lucknow, Aug. 1884).
5. C. H. I. IV, p. 566.

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of them acting as servants and others also owning a plot of land for agriculture as already described. The rural industries were not organised. They were confined to primary needs of the farmers.

There were, however, other industries which cannot be classed under any of the above division. These were smelting of ores like iron, copper, gold and silver, bangle-making, salt-petre industries etc., as described under chapter V.[1]

Industries like sugar-manufacture, indigo, saffron etc., have been mentioned in Chapter V. Perfumeries also formed an important industry. Jehangir was the King of Perfumeries. Attar of roses was discovered in his times. The mother of Nurjehan conceived the idea of collecting the oil which rises to the surface when rose water is heated, and this having been done, the oil was found to be the most powerful perfume. Jehangir was famous for perfumes and oils for the hair.[2]

Thusevery city of importance had its full share of different handicrafts. Some handicrafts were specialised in certain localities owing to the forces of nature controlling the supplies of raw material and other causes. The shawl-making or papier-mache work of Kashmir is an example on the point besides many others which have already been described.

6. Organization of Industries

No mention is found in the authorities of the periods on this topic and the silence of the European travellers means that they found no difference here as compared to conditions in their own countries. The management of business was not separated from the work of manufacture. There was no capitalist direction as still happens in the case of industries not organised on European pattern. There was poverty amongst the artisans and the conditions of labour prevailing have already been described under Chapter III. They wanted payment in advance. The Europeans complained of the inefficiency of some artisans specially in matters of business. "For when they gave a trial order to carpet weavers at Agra, they found the tardiness, slowness and poverty of the workmen to be so great as to prevent the establishment of a regular business. Elsewhere, they learned that buying through middle-men was less satisfactory."[3] Europeans very often preferred to make purchases of raw materials. For example, they would purchase unwashed wool, get it washed and then dyed. But for washermen also there were complaints. At Malacca, when cloth had been sold out, it was discovered that there were holes in the cloth. The washermen, to get opium, hired the cloth pieces for a month,

1. *Khulasat*, Per MSS. (S. B. U.) p. 28 (glass bangles at Patna)
Tarikh-i-Badayuni, S.B.U. p. 1067 (Dishes of salt and candle-sticks).
2. *Tarik-i-Badayuni* (alias Muntakhab-ut-Tawarikh) Per MSL. (S.B. U.) p. 1030. (*Tuzak-i-Jehangiri* in Elliot, Vol. VI, p. 288).
3. Moreland, *India at the Death of Akbar*, p. 185.

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and when they were dirty, beat them carelessly and thus the damage accrued owing to their negligence.[1] Bernier and Thevenot have given vivid descriptions in support of the hardships in which the workmen were compelled to work by the gentry and the nobles. The burden of taxation was high though from Akbar to Aurangzeb, we find Imperial farmans being issued to remit the unauthorised taxes. The local-governors and the Jagirdars had their own way. The artists were as poor as they are today. The question of wages, their standard of life and conditions under which they must have worked has already been described. The price of metals was high.

We have already noted elsewhere that the real wages of our labourers have declined as compared to that of the Mughal times. Dr. Radha Kamal Mookerjee too affirms the same view. Adequate data of comparison of real and money wages between Mughal times and the modern age are not available. Manucci, however, observes that the labourers then were quite contented and declined service. De Laet and Ovington support the same view. The accounts left by European factors of Gujrat, Madras and Bengal disclose that 3 pice per diem or 1½ dams sufficed for subsistence of the labourer.[2] On the whole it may be said that whereas the labourer in the period under reference could maintain himself at Rs. 1/8 - per month, at present he would require at least a rupee perday.

The village industries were not in a better position than what they are today. But there was no foreign competition. The craftsmen worked on the order and worked on the material supplied by the customer. Though the urban industries flourished well, they too declined at the close of the 18th century owing to the disappearance of the native courts, establishment of an alien rule, and competition of a highly developed form of industry.

7. Industrial Towns

We find no example of an industrial town as we have in the present age. As the character of the industry was itself determined more by the requirements of the court than by the presence of the raw materials, or other natural requirements, our industries were located mostly in the capital towns with few exceptions.

While discussing the organization of the Mandies, an attempt was made to describe a few towns of the period which became important as the result of marketing facilities. Some of them were also important as industrial towns. "From an economic point of view", says Gadgill, "the dominant trait of Indian towns at the period was not that they had no industries, but rather that the industries were not the cause of their importance. There were certain industries in every town. In the capital towns large industries were localised."[3]

1. *Ibid.*, Moreland quotes the report of a factor, p. 185.
2. *U. P. Journal of History Society* Vol. XIV. Pt. II. Dr. Radha Kamal Mookerjee, *Economic History of India* 1600-1800 p. 67.
3. Gadgill, *Economic Evolution of India*, p. 41.

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(*i*) *Dacca.* Due to the influence of a provincial court, the muslin industry had occupied a country-wide fame. Jehangir renamed Dacca as Jehangirabad and embellished it with gardens and beautiful plots. Utensils of silver and copper were also manufactured here and locally manufactured cloth was transported to the whole world.[1]

(*ii*) *Delhi.* It was one of the most ancient of the cities. Alla-uddin's city was called Siri and that of the Tughlaq's Tughlaqabad and Firozabad. In the twentieth year of his reign, Shahjehan founded Shahjehanabad.[2] Bernier laments over the absence of skilful artisans in the city. He adds . "Workshops occupied by the skilful artisans would be vainly sought for in Delhi, which has very little to boast of in that respect. This is not owing to disability to cultivate that art, for they are ingenious in every part of India. Numerous are the instances of handsome pieces of workmanship made by persons destitute of tools, and who can be scarcely said to have received education from a master. Some times they imitate so perfectly articles of European manufacture that the difference between the original and the copy can hardly be imagined. . . ,,"[3] Indians made excellent muskets and fowling pieces and beautiful gold ornaments. Bernier admired the art of painting and was specially impressed by a miniature painting of Akbar-a-hunting completed in 7 years. Want of due encouragement and the hardships, to which the artists were subjected at low rates of wages, were primarily responsible for the absence of artists in the city.

In Delhi, the only organisation was through the imperial kar-khanajats referred to previously.

Ahmedabad, Sironj, Qasimbazar, Benares, Bijapur, Brampur (Burhanpur) and Agra have already been described under the group of Mandies.

(*iii*) *Agra.* Agra which was embellished by Akbar was once known to be one of the finest cities in the world, and as the brightest monument of King's glory. It was 9 miles in length and had a population of 60,000.[4] Manucci, who stayed for 48 years, wrote in his Memoirs in 1697 about Agra : "Every day artisans of all description come to the palace to labour for the Mughal, painters and embroiders, goldsmiths, enamellers and silk weavers. Silence prevails. There is a head-watchman over the labourers." This account has also been

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1. *Tarikh-i-Badayuni* Per MSS. p. 1037, Actual words are :

Zaruf-e-mis anja khub min sazand . . . . anja shauhra-i- afaq parcha malmal wa siri saf waghaira dar anja qism baftand ki dar haft aqlim bar mughan barand.

Mirat-i-Aftabnuma Shahnawaz Khan, Per. MSS. (S. B.U.) p. 318b.

2. *Tarikh-i- Badayuni.* 1072 (Shahjehanabad was near Nurgarh alias Salimgarh on the Jumna completed in 1042 H under the subedari of Mukrammat Khan. Hamiduddin Mason, who was very efficient finished construction of the fort, 1000 yards long and 600 yards wide, in 20 years at a cost of Rs. 50 lakhs)., *Chahar Gulshan* , Per. MSS. p. 27.

3. *Bernier's Travels.* Vol. I. p. 254.

4. F. Catrou, *History of India*, p. 72,

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corroborated by Shahbazkhan.[1] The main industries of the city consisted of embroidery, tinsel work and perfumery.[2]

(*iv*) *Ghazipur*. Ghazipur on the Ganges was famous for red roses and perfumes like that of Jaunpore referred to in the above.[3]

(*v*) *Cambay*. The city was famous for skilled mechanics and craftsmen of all types, not less experts than artisans of Flemish towns of that period. "Cotton fabrics of all kinds, silk cloths, velvets and sattins were manufactured and silk carpets were also prepared which exhibited a skill of high standard."[4] Barbosa mentions with emphasis the large quantities of ivory required for "inlaid and cunningly turned articles such as bangles, swords, hilts, dice, chessmen, chess boards and bed-steads. The city was also famous for lapidaries who made imitation precious stones of various kinds which appeared real. There were skilful gold-smiths. Large trade was also carried on in al-aqiq or cornelians, agates and such stones. In short, "in this city the best workmen in every kind of work were found."[5]

(*vi*) *Limodra*. Situated on the bank of the Narbada, close to Ratanur in the present Rajpipla State, was famous for precious stones like the agates and cornelians, exported after due finish to countries of Europe and Western Asia. Throughout the 16th century Limodra maintained its celebrity in this industry. Here the stones were polished and worked into rings or nobs for hilts and swords, and daggers and into various other shapes, by expert craftsmen while merchants of Cambay used to buy them. In the beginning of the 17th century, the seat appears to have been transferred from Limodra to Cambay, to which place after a preliminary sorting and exposure to fire, at Limodra, to develop the colour, the stones were taken to be cut and polished and worked up into various shapes.[6]

(*vii*) *Golcunda*. It was added to the Mughal Empire by Aurangzeb. It was famous for its diamond mines, a source of great wealth. Besides, it manufactured plain and coloured cloths, iron and bezoor stones. Bijapur, the principal city of Golcunda, was an important industrial town of the period. The artists fled to capitals of chiefs and Rajas for fear of low wages and severity of the nobles. All necessaries of life were available there plenty of corn, rice, fish and poultry.[7]

(*viii*) *Alwar*. Ain mentions Alwar to be important for glass goods and woollen carpet industries.[8]

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1. R. Chhatarman, *Chahargulshan*, Per MSS. (S. B. U.) p. 28; Catrou: *History of India*, p. 280.
2. Mirza Murtiza Hussain Bilagrami, *Hadiqul Aqalim Per Text*, p. 274. Actual Words are:

Kar-i-zar chob wa digar parcha anja nek min sazand wa kalabatu wa kinari wa gulab-o-itr aan shahr ghait pasandida bud.

3. Shahbaz Khan, *Mirat-i-Aftabnuma*, Per MSS. (S. B. U.) p. 219 b.
4. M. S. Commissariat, *History of Gujrat*, p. 262.
5. *Barbosa*. I. p. 142.
6. *Barbosa* p. 142.5.
7. *Tavernier's Travels* I. p. 61.
8. *Ain*, II (*Jarrett*) pp. 136, 356.

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(*ix*) *Srinagar*. Here beautiful shawls and woollen stuffs called saqariat were manufactured. Durmah, pattu and other woollen materials were prepared for the population and the best ones were brought from Tibet.[1]

8. Need for State Patronage

Travellers during the times of Akbar and Jehangir : Fitch (1581-1594), Finch (1608-11), and Terry (1616-19) paid a high tribute to the wealth and grandeur of the cities of Agra, Delhi, Ahmedabad, Benares, etc., though a Portuguese priest, who accompanied Akbar from Surat to Agra expresses his disappointment at the closer disparity existing between the rich houses of the nobles and merchants, and the huts and hovels of the poorer folk. Tavernier, while, expressing his appreciation for the skill of the craftsmen and sympathies for their economic sad plight, also deprecatingly speaks of the various methods of deceits practised by the industrialists of the times. The plain silkwares could be altered in length, breadth and quality, gold threads were less than what contracted for, the colour might not be fast. In the case of the cotton calicuts, there were similar troubles. Deceits were possible by intermixing, wrong weighing and not pertaining to sample.[2]

There was no state control which could have regulated the industries into proper directions. In spite of huge supplies of raw materials, plenty of skill of our craftsmen, there appeared to be a real dearth of incentive. However, if there would have been an idea to offer patronage to private enterprise, there were sufficient finances.[3]

The patronage of the Government of the times was rather indirect. For the requirements of the *harem* inhabited by 5000 females-different classes of beings such as queens, concubines, princesses, ladies of the palace, governess of the provinces, musicians, female slaves, and eunuchs—all were handsomely supplied by costly apparels and things of every day life. This was a permanent demand. The Governors in the provincial head-quarters had their own circle of courtiers. But as the State maintained its own Karkhanajats, and some of the nobles maintained temporary karkhanajats, industries in general, specially in high class handicrafts could not move faster to create a wide demand. The textiles and the carpet weaving industry of Kashmir did find a good market in European and Asiatic markets till the eighties of the last century.

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1. William Foster, *Early Travels in India* pp. 22, 23, 133, 137, 161, 173, 177.
Smith, *Akbar* p. 398.

2. *Travernier Travels*, Part. I pp. 131-4.

3. The Mughals were not short of finances to provide due patronage to India's industries. Though it may be doubtful being not supported by contemporary authorities, Father Catrou maintains that Babar transported to Hindustan all the treasures of Samarqand, consisting of the spoils of the whole east. The other Mughal Emperors spent in buildings specially Shahjehan and in gifts as already mentioned. Besides, Aurangzeb by conquering Golcunda, became master of diamond mines.

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Commonly speaking, the Mughal patronage took three forms: the conferment of a rank (mansab), the grant of stipends in land or cash, the gift of rewards for particular performances. The first was for scholars, doctors, soldiers, and public servants. The second which was madad-i-muash (maintenance allowance), and the last one also was not meant for patronising industries.

The chief characteristic of a professional career was insecurity. "Success depended on favour" says Moreland, "Which might be withdrawn as quickly as it was granted, and even the most stable forms of income were in practice held only during pleasure, and were liable to be cut off summarily on a change in the personnel of administration."[1]

1. Moreland, *India at the Death of Akbar*, Chap. III. p. 85.

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CHAPTER 10

GOVERNMENT CONTROL

1. Tariff and Taxation

In spite of their ignorance of any theoretical science of Economics, the way in which financial problems were settled speaks creditably of the genius of some of the Mughal Emperors, specially that of Akbar. He initiated a sound financial policy which was followed by Jehangir and Shahjehan without any material alteration, though administrative efficiency slackened after Akbar's death. As we shall see in the following chapter, many farmans were issued, all with one purpose by one emperor, year after year, granting exemptions from various customs and duties on goods on the roads and ferries, and that they were not obeyed beyond the precincts of the capital. Sometimes, one doubts the integrity in the motive of the farmans, but examples like the one where one reads of Shahjehan's displeasure in noting enhancement of revenue of a village due to recedence of a river, and ordering dismissal of the officer concerned, and restoring the additional revenue amount to the villagers concerned, quickly efface out all misgivings.[1]

We can consider taxation under two heads : *viz.*, the Provincial and the Central.

Amongst the provincial sources were included the duties on production and consumption, trades, occupations, incidents of social life and duties on transport.[2]

Ain gives details of custom duties realised by Akbar. He realised 2½ per cent customs. "Nothing is now exacted," says Abulfazl, "upon the posts and imposts except a trifle taken at the posts which never exceeds 2½ per cent. Merchants account this reduction as a perfect remission."[3] On manufactures the duty was reduced from 10 to 5 per cent and 2 per cent was divided between the Patwari and the Qanungo. The following taxes were abolished:—

The capitation tax, *Jaziya*.
The port duties, *Mirbahri*.
Tax per head on gathering at places of worship, *Kar*.

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1. Sir J. N. Sarkar gives this anecdote in full. See Chapter V footnote 22 p. 105.

2. The system of taxation was considered traditional and traced back to Mauriyan times. These taxes were prohibited by Firoz Tughlaq, and later by Akbar and Aurangzeb, but the effects of prohibition orders were transitory. River tolls were prohibited by Jehangir (*Iqbal Nama-i-Jehangiri* by Maut-mid-Khan in Elliot VI. p. 449). The Tamgha and Mir Bahri duties were exempted. (Akbar and Babar also exempted these. (*Iqbal Nama-i-Jehangiri* in Elliot VI p. 494).

3. Abulfazl, *Ain* Vol. I. (English Tr.) Gladwin, p. 273.

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Tax on each tree, *sar-i-darakhti*,
A tax on each head of oxen, *gaushumari*,
Presents, *peshkash*,
Distraints, *quara*,
A tax on the various classes of artificers, *Peshawar*,
A Darogha fee, *daroghanah*,
Tehsildari fees, *Tehsildari*,
Complementary offerings on receiving lease and the like *Salami*,
Lodging charges, *Wajih kiraya*,
Money bags, *Kharitah*,
Testing and changing money, *sarafi*,
Market duties, *hasil-bazar*.

Besides the above the following taxes were remitted :[1]—

Sale of cattle, taxes on hemp, blankets, oils, raw-hides, weighing sealing, butchers-taxes, tanning, passorts for goods, house sale, illumination fee, salt made from nitrous earth, permission to reap harvests, felt, manufacture of lime liquors, brokerage, catching fish, products of trees like Als (Morinda citrifolia). Abulfazl fails to classify as to which of these taxes were provincial duties. However the nature of duties explains the details of their classification which at this stage is not very material.

Jehangir's total remission also implied a levy of 2½ per cent. Captain Hawkins refers to the high handedness of the officers and quoting an incident of his personal experience continues: "Muqarrab Khan (Viceroy of Cambay) who had no command in Surat except what regarded the King's custom, to get possession of my goods, took what he chose, and left what he pleased, giving me such price as his own barbarous conscience dictated, when 35 was agreed, giving me only 15"[2] Steel and Crowther present the worst picture. "All caravans must remain at Multan 10 or 12 days before leave can be procured from the governor to proceed on purpose so that the city may benefit by their stay. We remained for 5 days and were glad to depart by means of a present."[3] That likewise the English were troubled by the Governor and officials at Ahmedabad, is clearly borne out by the evidence of Sir Thomas Roe. They were fined, subjected to arbitrary exactions, and kept as prisoners. At every town new customs were demanded for their goods on their passage to the port.[4]

The above accounts explain that Jehangir's farman was a mere scribbling on paper. Under Akbar's times a tax on marriage was

1. *Ibid*, II. (Jarrett) pp. 72-3.
2. Captain Hawkin's Narrative in the *Purchas Pilgrims* I, p. 208.
3. R. Steel and Crowther, *A Journey*, p. 520.
4. Sir Thomas Roe in *Kerr's Collection* Vol, IX. p. 264.

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charged at the following rates from both the parties :

Mansabdars 5—1000 paid 10 Mohurs.
Mansabdars 1—500 paid 4 Mohurs.
do 100 paid 2 do
do 40 paid 1 do
do 10 paid Rs. 4/-
Middle class Re. 1/-
Common class one dam.

The Mansabdars paid with regard to bride's father.[1]

Central Sources of Tax

The Central sources of revenue were fewer in number and they might be classed as Commerce, mint, presents, inheritance, salt, customs, poll-tax and land revenue. From time to time the State took an active part in commerce, but its operations were fiscally important when they involved a monopoly of particular commodities. The monopolies ordinarily concerned the munitions such as lead or salt-petre, but occasionally other articles were effected *e.g.* that of indigo-created by Shahjehan in 1633, which however was quickly broken by the opposition of the foreign buyers. "The income from mints' working was a source of revenue, though total yield has not been recorded, but it could not be large so long as the prescribed standards of currency were maintained."[2] Court etiquette required that the presents of substantial value be offered to the emperors on various occasions, and ordinarily these were worth much more than the presents given in return. An idea of such fiscal importance can be formed from the fact that under Shahjehan, when the incidence was the heaviest, the presents given at the New Year, the chief ceremonial occasion, totalled from one to three million rupees in different years, "from which must be deducted the value whatever it was, of what was given by the emperor instead."[3]

As regards inheritance, the State claimed all the property left by its officers, and the claim was extended on occasions to the estates of the wealthy merchants, anything relinquished for the maintenance of the families and the dependents was a matter of favour. "The whole claim was formally abandoned by Aurangzeb, but there were sound indications that his orders were not carried out in their entirety. Income from this source naturally fluctuated, a particular officer might have a large sum, such as Asaf Khan's fortune of Rs. 25 millions in the reign of Shahjehan, but such great accumulations were naturally rare, while many officers died in debt and left very little for the treasury".[4] This was really a very pernicious system and did not encourage

1. *Ain I* (Blockman) p. 288.
2. *C. H. I.* Vol. IV. Chap. XVI. p. 449.
3. *Cambridge History of India*, Vol, IV, p. 449.
4. *Ibid.* p. 450.

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thrift and accumulation of capital so very necessary for industrialisation. The real cause of this indebtedness must have been this practice as the officers would have naturally thought why should they live in misery so as to benefit the State.

There was no uniform system of taxing salt, and some important sources were controlled locally; the mines in the Punjab and the Sambhar Lake in Rajputana, however, were administered by the State. The income from those sources was brought to account as part of the land revenue and cannot be stated in precise figures, but on the basis of available figures, it could not have been more than one million rupees. Compared with the modern standards, Custom duties were formally low, ranging from 5 per cent downwards, but in practice, their incidence was seriously increased arbitrarily over valuation and extra charges from prompt clearance of goods. Some idea of the magnitude of the custom revenues can be formed from the fact that in the middle of the 17th century, the port of Surat was reckoned to yield half a million rupees a year after the cost of administration had been met. In the Surat Sarkar there were 996 villages and 31 mahals with an annual income of 50 lakhs of rupees.[1]

The *jazia* or poll-tax, which according to strict Islamic law was payable only by Jews and the Christians, had been claimed by some early Islamic rulers from the Hindu subjects. The claim was formally abandoned by Akbar and was reimposed by Aurangzeb. Under effective administration, the yield might have been substantial but this condition was not present and was probably unattainable by circumstances of the times. The amount actually realised is not recorded under authorities of the times.

All these sources of Central taxation taken together were quite small, when compared with the land-revenue which was reckoned more than 90 million rupees in the latter part of Akbar's reign, and at 222 millions in the reign of Shahjehan. The disparity is indeed sufficient to justify the traditional practice in India. The burden on land was increased through cesses proportionate to the revenue charged on the unit of cultivation as the case might be, some of them general or permanent, others local and temporary, but the authorities say very little about these, and no estimate can be formed of the aggregate addition which they made in the burden of the peasant.

In the previous chapter, problems connected with land revenue and assessments have been fully discussed. We have seen how the revenue stood in successive years from 1593 to 1707 A.D., the end of the period in review, and, what were the causes leading to the various fluctuations. These figures were inclusive of the various taxes also.

Muhammad Sharif Hanafi, the author of Majlisu Salatin, says that the revenue of Akbar was 6 Arabs, 75 lakhs of dams which means

1. *Mirat-i-Ahmadi*, Hussain Mohammad Khan, Per MSS. (S. B. U.) p. 21. (Vol. I.)

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Rs. 14,35,50,000 and there were 15 provinces.[1] In the times of Aurangzeb, the revenue had increased to 9 Arabs, 24 crores, 17 lakhs, 16082 dams or nearly 50 per cent more than that of Akbar. In his times there were 20 provinces with 4440 parganas.[2] Khafi Khan mentions that Aurangzeb granted remission of many taxes prevalent, like the pandari, house or ground tax paid by every tradesman, rahdari, a tax on roads and ferries, tax on the draper, jeweller, and banker for every bit of ground in the market, taxes on butcher, potter, grocer. Aurangzeb also exempted sar-shumari (census) tax, buz-shumari (goat tax), bar-garhi (grazing tax on the banjaras), tawana (voluntary contribution), collection from the fairs held at the saint's tombs and also Hindu fairs. Taxes on spirits, gambling houses, brothels, fines, thanks-giving and ¼ of the debts were recovered through the magistrates. The abolition of the various taxes meant foregoing of 80 crores of dams.[3] Besides these, he remitted 4 tithes amounting to 25 lakhs of dams. Khafi Khan frankly admits that the effect of these orders was felt only around capital, the jagirdars and foujdars outside had no fear of the king, and extracted these taxes as of usual through inattention or want of consideration for the farmans. The merchant since the time of purchasing his goods at the centres of manufactures, since their passage to the port of destination, had to pay double the cost of commodities as taxes. Aurangzeb particularly disliked road taxes as something quite repugnant to the spirit of Muhammedan Law. Mirat mentions that in Patan export taxes were charged at the following rates:

400 canes at Rs. 4/- or Rs. 5/- (according to quality)
Cereals and Eatables at Rs. 2/- per maund.
Sheep Tax -/8/- per year.
Cows Re. 1/- per year.

Articles below Rs. 52/8/- were exempt from the operations of the taxes. Grains were heavily taxed to check rise of prices by exports.[5] The English merchants were shown preference by exemption from most of the above taxes.

As a protest against the poll tax, the Hindus used to assemble to express their indignation. In 1680 they were ordered to be trampled down under elephant's feet. *Jazia* began to be realised from all the Hindus in the country.[6]

Most of the taxes of the Mughal times were direct taxes. None of the Mughal emperors ever thought of taxation as a powerful weapon for transferring a part of their profits for the benefit of the country.

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1. *Majlisus Salatin*, Muhammad Sharif, in Elliot VII, p. 125.
2. *Tarikh-i-Muzaffarshahi* in Elliot VII. p. 144.
3. Khafi Khan, *Muntakhab-ul-lubab*, Elliot VII. p. 246.
4. *Alamgirnama*, Muhammad Qazimi. Per MSS. (S. B. U.) p. 486; *Mirat-i-Ahmadi* : Hussain Muhammad Khan. Per MSS. p. 436.
5. *Mirat i-Ahmadi*, Per MSS. p. 409. Farman dated 1075 H. Sec. 30-34. The export, over 100 maunds of grain and 250 mds. of roses were levied duty, the rest was not.
6. *Muntakhab-ul-lubab*, Khafi Khan. p. 221 Elliot VII. p. 283.

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2. State Interference and Control

We have noted elsewhere that all the Mughal Rulers, with the exception of Aurangzeb, engaged in private trade and as such interference was rather too frequent. Trade was not free. Religious fanaticism, official obstructions, fixation of prices by definite ordinances and through city kotwals, personal interest of the Kings, his relations and seraglio, monopoly in particular branches of trade, were some of the factors which impeded the progress of trade and industries.

Though Akbar was not imbued with religious fanaticism, it was recognised in his reign that the King possessed priority of purchase of any article which came to the country. Faizi requested Akbar to appoint experienced and sympathetic persons in the cities and bazars who should fix the prices of market sales.[1] The banking business was monopolised and the King earned a great deal by issuing permits to carry on banking in the country. No horse could be sold without the knowledge of the King or his Agents.[2] By issuing farmans a trader could be permitted or checked to do any particular business. On the ports no outsider could settle to do business without royal permission[3] In Jehangir's times, Nurjehan dabbled in precious metals and embroidered cloth and exerted influence upon her lover King for the benefit of whomsoever she liked as referred to before. Shahjehan traded in cloth, indigo, salt-petre, stones and exchanging horses at Basra for his horses. Both as prince and King, he earned large profits. In 1643 the English factors complained that unless the King's junk was loaded and despatched, very little freight could be obtained.[4] Tavernier says : "Two per cent on all purchases of diamonds is paid to the King, who also receives a royalty from the merchants for permission to mine."[5] Shahjehan's father-in-law Asaf Khan, his daughter Princess Jehanara, and Sadullah Khan were trading on their own account. The wealth of Asaf Khan was fabulous. Aurangzeb was not a trader but an annihilator of trade. The various monopolies of trade in his times of salt-petre, wax, silk and others were the creation of his governors. We thus see that "since the bulk of the consuming classes were dependent mediately or immediately upon the state, the chief agent of distribution was the revenue system in force."[6]

The letters written by the servants of the East India Company during the reign of Aurangzeb refer on several occasions to the misgovernment of the local officials. "The governors in these parts", runs a letter, "to Surat from Balasore of April 28th 1663 by reason of the Nabob (Khankhana), his long absence and distance, have been

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1. Abulfazl, *Akbarnama* Per Taxt p. 210. Beveridge p. 560.
2. *Commentary of F. Monserrate* : Hoyland and Bannerjee, p. 207.
3. Moreland, *From Akbar to Aurangzeb*, p. 221.
4. William Foster, *English Factories* 1642-45. p. 91.
5. *Tavernier's Travels* II. (Ed. Ball) p. 59.
6. Moreland, *India at the Death of Akbar*, p. 295.

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so insolent and illimitable in their extortions that they have very much impaired the trade here." Again the letter of 21st June 1664 carries a complaint of Shaista Khan from the English merchants that "so dishonourable and covetious a person never came into for a Governor."[1]

3. State Support to Manufactures and Trade

In our long narrative of manufactures, we have seen that the State maintained its own Karkhanajats and supported and patronised the artists indirectly by its own purchases. In the annals of the period we come across several examples of Emperor's support to industries and trade of the country.

Babar dug canals and made embankments to encourage and develop agriculture. He patronised painters, embroiderers, artisans of all description, gold-smiths, enamellers, silk-weavers who regularly came to his palaces. In his times all Non-Muslim merchants paid customs at the rate of 5 per cent, Muhammedans were exempted by him. The revenue resources of Babar were rather limited. Erskine estimates them to be 476,533, 457½ dams besides 250,000 silver tankas of Tirhut, Khidwatwana and the tribute of various rajas left blank.[2] Shershah greatly encouraged commerce by abolishing numerous duties that were charged on the boundaries of every province, every district and, in fact, at every ferry and every permanent road. He laid down that only two duties should be charged on the transport of goods intended for sale. One duty was charged when the mercantile commodities entered the boundaries of the Kingdom at Sonargaon in East Bengal, or at Rohtasgarh in the Punjab, or at any other place, and the second duty was charged at the place of its sale. We do not know the exact amount charged. It seems probable that the law was 2½ per cent of the price of the articles.[3] All internal custom houses were abolished. This reform encouraged trade and commerce and advanced the commercial prosperity of the country to a very great extent.[4] Humayun patronised merchants who came from far off countries and granted them protection by giving them charters and reducing their taxes.[5] Akbar too patronised all fine arts and artists received patronage for their skill in music and other arts. Agriculturists received loans for improvement in their calling.[6] Jehangir and Shahjehan even excelled Akbar.

Under Aurangzeb, there was a decline of all fine arts, industries and trade as already noted. Of course the patronage was forthcoming from his remissions of the various taxes as pointed out. The nobles

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1. William Foster, *Factories*. 1661 p. 288, 395.
2. *Erskine*, p. 540 : "According to the computation of Akbar's times it would amount to £1,300,000 and according to Farishta £26,000,000. As suggested by Mirza Haider it was Rs. 7,81,46,500," Note p. 542.
3. Dr. A. L. Sriwastava, *Shershah and his Successors*, p. 79.
4. *Humayun Nama*, Khwandamir. Per Text. p. 25; Eng. Tr. p. 20.
5. Abulfazl, *Akbar Nama* Per MSS. (S. B. U.) p. 256. Elliot Vol. VI. p. 57.

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and the provincial governors also kept karkhanajats as they had to make costly presents to the Emperors on various occasions. But as the labour class suffered at their hands, there must have been left little incentive to cultivate and improve the art.

Amongst the remissions of Aurangzeb, one peculiarity certainly speaks of the Emperor's desire to develop the textile industry. Mirat mentions that there was no tax on the apprentices in textiles. From purchasers in Ahmedabad the duty charged was only 2½ per cent. and poor merchants going out of Ahmedabad were not charged any duty.[1] Aurangzeb had to bribe the Portuguese with a sum of Rs. 1,200,000 to allow all privileges to the local people engaged in shipping on the Malabar coast.

4. General View of Fiscal System

The chief source of revenue in the period was land revenue, and the proportion of custom duties was very small. The statistics available cannot show the actual amount realised from the custom dues. The Mughals had no regard for the canons of taxation; neither they cared whether the taxation was to be direct or indirect, problems which confront the modern financier. Most of the customs were direct except a few like the salt tax or tax upon the commodities. Besides, the burden of taxation which was rather low, the incidence of bribery given to various local and provincial officers was rather too great on the consumers; for, after all, the traders could certainly shift the incidence upon the shoulders of the purchasers of goods, which at times, due to the excesses and extortions would cost three times their actual value. The machinery being what it was, with imperfect means of communication, the rulers themselves possessing personal interests in trade affairs, and a difficult approach to the court, trade did not improve with speed.

In theory taxation was a prerogative of the Emperor, but in practice anybody who was something could levy at the ferry and the roads whatever he preferred. Thus there grew up a multiplicity of taxes. Taxation was never thought of as a strong weapon of transferring wealth from those who could pay according to their taxable capacity to those who needed it. Taxation was viewed purely from revenue standpoint. Again, we find a number of farmans to European traders giving them much greater concessions than one could expect for the people of the land itself.

Like the ancient Roman Emperors, there was a common practice with the Mughal Emperors to introduce a new tax whenever a new expenditure was in sight. For example we find Akbar levying a new tax while building Agra Fort or Fatehpur Sikri. When Khandesh was being annexed, Prince Danyal raised the assessment by 50 per cent.

1. *Mirat*, Hussain Muhammad Khan, Per MSS. (S. B. U.) p. 409.

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"The taxation theory of the Mughals" says Dr. Pant, "is a record of confusion, worse confounded".[1] He further continues, "The evil of farming taxes aggravated the situation. Uncertainty of taxes, the wide range of taxes, insatiable greed of officials, the frequency of taxes levied by powerful individuals on their own account, the multiplicity of taxes, and the weak protection of life and property on the King's Highways and in the King's Courts; all these were bound to kill all enterprise and incentive in trade. . . ."[2] Taxation depended upon the discretion of individual officers. Mostly the burden of taxation (transit duties) depended not on quality, rather on official discretion.

Under Aurangzeb, the basic principle of taxation appears to be a reflection of his iconoclastic zeal trying to ground down Hindus. Taxes on bathing ghats, like that on the Ganges, carrying the dead to the cremation ground and marriages besides the hated Jazia, speak volumes of Government's pernicious policy which had little to do with any principles of Economics.

Speaking of the ravages of Marathas, Khafi Khan, the famous historian of Aurangzeb's time, rightly adds: "They openly levied rahdari, and evil doers from all parties of merchants, took a tax upon every cart bullock three or four times greater than the amount imposed by all the faujdars of the Government. This excess Shivajee shares with the corrupt Jagirdars or faujdars of the Government and then leaves road open. . . . Muqaddms join corrupt practices. . . faujdars cooperating with the Marathas, make terms with him for the payment of revenue. . . .destroy the country as far as Ahmedabad district and Malwa-plunder caravans within 10 or 12 kos of the imperial camp. . . also attack ryots' treasure."[3] This was the condition of the people and the country at the fag end of the Mughal rule, and complete was the desolation.

At the beginning of their rule, the Mughal Emperors had found a large number of miscellaneous taxes and cesses (abwabs) in existence, which had been imposed by the preceding Hindu and Muslim Governments. Some of these were retained and others were abolished as we have already seen. Abulfazl gives a list of 40 cesses abolished by Akbar, and his example was successively followed by Jehangir and Aurangzeb. Amongst them was a tax known as sardarakhti, or tax on trees which was adopted even by the Maratha Government. "Thanks to the Almighty": wrote Emperor Jehangir, "that no revenue on fruit trees has been taken during my reign, and I gave order, that, if any were to plant a garden in cultivated land, he was not to pay any revenue".[4] How far the emperor's vain boast was carried out was merely a foretaste of farmans of Aurangzeb. In a farman or

1. Pant, *Commcial Policy of the Mughals*, p. 82.
2. *Ibid.*
3. *Muntakhab-ul-lubab*, Khafi Khan. Per MSS. (S.B.U.) p851. *Elliot VII. p.* 361.
4. *Elliot VI p.* 365.

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Memorandum of instructions to one of his chief revenue collectors (krori) Rasikdas, Aurangzeb bade him : "Strongly urge the amins, amils, Chaudharies, qanungos, mutsaddis to abolish 'balia', exactions (akhrajats) in excess of revenue and forbidden abwabs, and impair the welfare of the ryots. Take security from them that they should never exact 'balia', or collect the abwabs prohibited and abolished by His Majesty."[1] Aurangzeb had abolished 70 abwabs nearly. It appears that no attention was paid to these. It is really a matter of surprise that the orders of the powerful Emperors should not have been cared for. From the continued repetitions of these gross injustices on the part of the officials concerned, it appears that the rulers were anxious simply to create a history in writing, with no practical bearing, lest their incomes which gave them means of enjoyment should be ousted from them. Disobedience to a Royal Farman should have been a crime of the grossest misconduct, which could not have been passed over especially where Hindus were concerned. Of course it is not possible to find evidence to strengthen this surmise, but the circumstantial evidence is sufficient to prove the *mala fides* of the farmans, which in most of the cases were a show for others to exhibit their benevolence.

1. J. N. Sarkar, *Studies in Aurangzeb's Reign*, p. 194.

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CHAPTER 11

HOME AND FOREIGN TRADE

1. Position of Trade in Ancient and Mediaeval Times

A cursory glance over India's ancient and foreign trade shows that a long lapse of centuries had little affected the nature of the country's commerce, its supply and demand of commodities and the actual items of imports and exports; even under the Mughal period, rare and costly commodities of comparatively great value in small bulk entered into trade. Silk, muslins, finer sort of cloths, perfumes and drugs, cutlery, armour, brocades and embroideries and rugs, jewellery and gold, seldom silver,..... these were the main items in which the merchants dealt. "As long as 3000 B. C. India maintained trade connections with Babylon. The Muslins of Dacca were known to the ancients under the name of Gangetica. Egyptian mummies supposed to have belonged to 2000 B.C. have been found wrapped in Indian muslins of the finest quality. There was very large consumption of Indian manufactures in Rome. This is confirmed by Elder Pliny who complained that vast sums of money were annually absorbed by commerce in India"[1] Among countries with which India traded were China, Persia, Arabia. There was a net import of large quantities of gold which suggests an excess of exports over imports, a feature which has all along been a characteristic of India's trade with other nations.[2] There was also a certain amount of entrepot trade chiefly in silks and porcelain, first imported from China, in pearls from Ceylon and in precious stones from Indian Archipelago." This entrepot trade may be taken as a token of India's possession of a fleet of merchantmen (ships).[3]

2. Arrival of Europeans

Vasco de Gama arrived at Calicut in 1498 A. D. with three tiny ships of 120 tons each. In April 1498, he reached Melinda, 200 miles North of Zanzibar and there obtained a pilot competent to guide

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1. M. M. Malviya, *Minute of Dissent to the Industrial Commission Report* 1918 p. 295.

2. Archibald & Constable, *Bernier's Travels* Pt. II. p. 202. (As late as the times of Shahjehan and Aurangzeb, Bernier remarks: "All the gold and silver after circulating in every quarter of the globe, come at length to be swallowed up, lost in some measure in Hindustan. Of the quantity drawn from America, and dispersed among different European States, a part finds its way through various channels to Turkey for the payment of commodities imported from that country and part passes into Persia by way of Symerna for silks laden at that port. Turkey can dispense with the coffee which she receives from Yemen; production of Indies are necessary to Turkey, Yemen and Persia.... Thus silver and gold are exported to Hindustan...."

3. Jathar & Beri, *Indian Economics*, Pt. II. p. 196.

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him to India. On May 20th, 1498 he anchored at Calicut then in possession of Zamorin.[1] After staying for six months, Vasco de Gama returned to Europe with a letter from King Zamorin to the King of Portugal. The Portuguese, the pioneers of Eastern adventure brought from Malabar pepper and other spices, and the cotton calicoes which took their name from Calicut. Fixing their head-quarters at Goa, they advanced northwards to Surat, the ancient port not only for Gujrat but for all upper India, eastward into remote seas which were dotted with Spice Islands. "But with the Portuguese the trading instinct was subordinate to the spirit of proselytism and the ambition of the territorial aggrandisement.[2]"

The Dutch superseded the Portuguese as traders and organised a colonial system upon the basis of monopoly and forced labour. The Dutch were the first European nation who broke through the Portuguese monopoly. During the 16th century Bruges, Antwerp and Amsterdam became successfully the great emporiums of Indian produce imported by the Portuguese who distributed it in Germany fand even in England. The fall of the Dutch colonial Empire resulted rom their short-sighted policy. It was based upon a monopoly of trade in spices, and remained from the first to the last, destitute of sound economic principles. Like the Phoenecians of old, the Dutch stopped to no acts of cruelty towards their rivals in commerce, but unlike the Phoenecians, they failed to introduce their civilisation amongst the natives with whom they came into contact. In 1599, the Dutch, who had firmly established their trade in the East, realised price of pepper from three to eight shillings. On 31st Dec. 1600 A. D. the English East India Company was formed by a Royal Charter under the title of "The Governor and Merchants of London Trading to the East Indies.[3]" The English were the last to come and establish factories at various points along the coast line, and content to live under the shadow of the native powers. Wars with the Portuguese, with the Dutch, with the French, first taught the English their own strength, and as the Mughal Empire fell to pieces, they became the rulers in order to protect their commercial settlements. Says W.W. Hunter : "Our Indian Empire has grown out of trade, but, meanwhile, our Indian trade has grown even faster than our Empire.[4]"

The English were promptly opposed by the Portuguese, but James Lancaster, even in the first voyage (1602) established commercial relations with the King of Aachinand at Priaman in the Island of Sumatra as well as with the Malacca and at Bantam, where he settled a factory, (House of trade) in 1603. In 1608 Captain Hawkins landed at Surat as Envoy from James I and the East India Company

1. Mount Stuart Elphinston, *History of India*, p. 399.
2. W. W. Hunter, *The Indian Empire*, p. 443.
3. *Reprt of Old Records in India Office*, pp. 75-77.
W. W. Hunter, *Indian Empire*. pp. 272-3.
4. *Ibid*. p. 243.

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to the Court of the Great Mughal. He was received by Emperor Jehangir, and remained at Agra for three years. In 1615 the Company's fleet under Captain Best was attacked at Swally, the port of Surat at the mouth of R. Tapti by an overwhelming force of the Portuguese, but assailants were defeated and factories established at Gogra, Ahmedabad and Cambay. Trade was opened with the Persian Gulf. In 1614 a factory was established in Ajmer by Mr. Edwards of the Surat Company. Until 1684-7, the Chief of Western India remained at Surat and later his office was transferred to Bombay. In 1615 Sir Thomas Roe was sent by James I as an ambassador to the court of Jehangir and succeeded in placing the company's trade in the Mughal dominions on a more favourable footing. In 1618, the English established a factory at Mocha but the Dutch compelled them to resign all pretensions in the Spice Islands. In the times of Shahjehan and Aurangzeb, the English possessed of a strong fleet, manned by experts, obtained a strong foot-hold on the trade of the country as we shall see later on, which ultimately culminated in carving an empire for themselves. Thus we see that "foreign traders began to take part in India's oversea trade in the sixteenth century, but it was not until after the English East India Company had been ejected from the East India Archipelago by the Dutch that direct trade between India and the West began to replace the former "roundabout" trade. "At the end of the 17th and during the eighteenth centuries the European demand for Indian exports increased considerably although it was checked by England's mercantilist policy....."[1]

3. Position of Trade Under the Mughals

The Persian authorities throw scanty light upon trade development of the period. The inland trade of Hindustan in the whole of the Sultanate period was hampered by numerous imposts imposed in different places by different authorities. There had been no freedom of trade between different provinces of the Empire except perhaps the corn trade in the days of Allaudin Khiljee and even within a province, persons in authority exacted whatever they could from merchants at every ferry and on the highway. Commerce thus shackled down within very narrow and uncertain markets, inevitably declined, and with it the material development and prosperity of the Empire lagged behind.

In his Memoirs, Babar is emphatic in describing trade between India and Kabul. He adds : "Between Khurasan and Hind (India) by land route there are two trading centres : Kabul and Qandhar. Caravans come to Kabul from Farghana, Turkestan, Samarqand, Balakh, Bukhara, Hissar Badakshan and also from Khurasan to Qandhar. Between Khurasan and Hindustan there are regular trading connections. The trade of dry fruits is brisk. If the

1. Vera Anstey, *Economic Development of India*, Chap. XII pp. 329-30.

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merchants go to Turkey and Asia Minor, some type of trade will be found. Seven thousand horses come to Kabul from India besides 11000 camels laden with Indian goods—cloths, black and white, rugs, sugar, candy, and medicinal herbs.[1]" Speaking of the large volume of business, Babar again says : "There are many merchants who are not willing (to hire less than) 300 and 400 caravan (meaning perhaps horses)." The actual words used are *'Bisyar az saudagaran bashand ki bidah si wa chahal razi na bashand'*. He continues: "The commodities of Khurasan and Iraq and China are available in Kabul .... Oranges, lemons and sugar canes come from Lamnat... honey comes from the mountainous tract of Ghazni. Grapes, apricots, peaches and many other fruits including melons are exported to India."[2]

Under Humayun there was no change in the nature of trade. He showed every possible interest in the merchants who came from other countries and patronised arts and crafts of his empire.

Under Shershah "Foreign goods were allowed to enter Bengal free of import duty possibly owing to the difficulty of collection. There was no convenient frontier on the East (such as the Indus was on the West) where custom could be collected at ease. The mountain passes on the North and the East and the Sea coast towns on the South were too many to be guarded effectively against smuggling. But it is doubtful whether Shershah abolished custom houses in such busy ports as Chittagong and Satgaon, the importance of which had enormously increased owing to the opening of commerce with the Portuguese"[3] If there would have been any remission, the Portuguese chroniclers must have noted this. Abbas Sarwani; like-wise fails to enumerate the places at which the commodities coming from the Deccan or Gujrat were taxed. Abbas clearly mentions that he had definite instructions to collect the customs on commodities entering into his dominions.[4]

Both Akbar and Jehangir took interest in the extension of the Empire's foreign trade, chiefly in articles of luxury, so far as imports were concerned. The sea-ports as Terry observes were few.[5] On the Western coast, Surat was a good harbour. Close to Hoogly, Satgaon was a fair city of the Moors and very busy. Custom duties were not high. "Traders were forbidden to carry any quantity of silver there (in accordance with the economic theory prevalent in the age). The English purchases were chiefly paid for in silver which was largely imported."[6]

1. *Waqai Babri*, Per MSS. (S. B. U.) pp. 149-150.
2. *Waqai-Babri*, Per MSS. pp. 149-50.
3. Qanungo, *Shershah* pp. 387-8.
4. Abbas Sarwani, *Tauhfa-Akbar Shahi* p. 181.
5. *Terry*, p. 397.
6. *Terry*, pp. 112, 397.
   Fitch, p. 114.

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Trade between India and England had not been established before the death of Akbar. Indigo, cotton and wool were the principal articles of export. Abulfazl does not throw light upon the system of prevailing custom. Under Akbar's times, as mentioned by Terry, the rate of duty was low as explained from the following figures from the Ain[1] :—

PORT DUTIES

Ports	Revenue in Mahmudis.	Ports	Revenue in Mahamudis
1. Manglore	27,000	6. Meykor	3,000
2. Pattandeo	25,000	7. Mowa	1,000
3. Karinar	1,000	8. Dungar	1,000
4. Nagsari	10,000	9. Talaja Mahal	7,000
5. Porbander	27,000	10. Una	15,000
Total Revenue of the above ten ports			1,17,000

Akbar being himself a trader, did not disdain to earn commercial profits. Considerable quantities of Chinese porcelain was imported which was used both by the Emperor as well as by the Muslim nobles, Hindus disdaining from it due to their caste prejudices. On his death, Akbar left behind him crockery worth Rs. 2,500,000, some artistic porcelain and coloured glass utensils.[2]

In Jehangir's times trade was brisk. Owing to the increasing demand of the Portuguese, the Dutch and the English, the trade relations with many new countries were resorted to. The Dutch owing to their superiority were ousting the Portuguese. Whereas the Dutch carried on their operations on the East Coast, the chief ports being Pulicat, Masulipattam and other places, the English were masters of the situation on the Western coast with their headquarters at Surat. Both of these being competitors, were not on good terms, and tried to oust the other from the market. In his extreme indignation Sir Thomas Roe went so far as to remark that "the Dutch would both out-present, out bribe, and out buy us in all things."

1. *Ain II* (Jarrett) (1949) p. 264. Mr. Smith mentions the total to be 1,25,000. This is a mistake of addition.

2. De Laet & Manrique, *The Treasures of Akbar* J.R.A.S. 1915 p. 242

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Higgling was current. A ship demanding one lakh Mahmudis as freight (about Rs. 40,000), was actually hired for Rs. 2,000 with some presents in addition. Market opened twice a week. Says Terry : "Every town or city of India hath markets twice a day in the cool season, presently after the sunne has risen and a little before his setting. They sell every-thing by weight."[1] During the summers, markets were busy for only one or two hours in the morning after sun-rise, and three or four hours after sunset. Meat was cheap. 'A good mutton for the value of one shilling, four couple of hennes at the same price; one hare at a penny, three partridges for as little or so; the rest in the same proportion."[2]

The European authorities have cast unlignified aspersions upon the business mentality of the merchants of the times. Tavernier, William Finch and Fryer go so far as to use filthy language. But Pyrard de Lavel makes some interesting observations about the skill of country's craftsmen. Says he, "A cunning and crafty race, not however fraudulent, nor easy to defraud. And what is to be observed of all their manufacture is this, that they are both of good workmanship and cheap. I have never seen men of wit, so fine and polished as these men are; nothing barbarous or savage about them as we are apt to suppose."[3] In his condemnation, Tavernier goes so far as to say that the money changers of India are even more cunning and clever than the Jews engaged in the money matters in the Turkish Empire. William Finch goes a step further: "They are as subtle, says he, "as the devil whose limbs certainly I pursuade myself they are." Dr. Fryer adds : "Banias are the arrest tools for any deceitful undertaking."[4]

It appears that a number of custom duties in various provinces and territories, with unsafety of roads combined with the personal interest of the Emperor, his queen and other ladies of the imperial seraglio, to the adverse interests of the foreign merchants, evoked in them a feeling of disgust with the merchant class, chiefly of Hindus. Some English writers like Dr. Fryer (1673), were given to exaggeration and distortion of facts. Referring to the tortures of Shivajee on the Brahmins of Vengurla, now in Ratnagiri district, he writes : "They have in limbo several Brahmins, whose flesh they tear with pincers, heated red-hot, drub them on the shoulders to extreme anguish, racked and tortured most inhumanly. . . ."[5] It is unthinkable for Shivajee to have gone to the depth of so molesting Brahmins for whom he lived and died.

Quoting an instance of Jehangir's trading, William Hawkins observes "Likewise, he (Jenangir) cannot abide that any man should

1. William Foster, *Early Travels* 1583-1619 p. 313.
2. J. N. Das Gupta, *India in the 17th Century*, p. 170.
3. Albert Gray, *The Voyeage of Pyrard de lavl* (1608-11) pt. I Vol. V. pp. 248-9.
4. John Fryer & Thomas Roe, *Travels in the 17th Century*.
5. Smith, *Oxford History of India*... p. 423.

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have any precious stone of value, for it is death, if he knew it not at the present time, and that he hath the refusal thereof...By this means the king hath engrossed all faire stones that no man can buy from 5 carats upwards, without his leave, for he hath the refusal of all, and giveth not by a third part, so much as their value."[1] Again writing to Thomas Smyth on 16th Jan., 1616, Sir Thomas Roe adds : "The king suffers the money changers to let fall his coin ¼th and other raise their goods up to it".[2] It is quite probable that the king might be charging some share out of this rising and falling of money prices.

Nurjehan who traded with her brother Asaf Khan had a lot of influence with her lover husband. Sir Thomas Roe refers to her errands to him bringing him news that the queen had secured certain concessions for them and in near future she would wield influence for their good. She could confer benefits to whomsoever she pleased. The relations between the Portuguese and the emperor being straitened, Nurjehan wanted to utilise the services of the English ships.[3]

Shahjehan also traded. His commads to reserve the Red Sea only for Indians, which though lacked complete compliance were perpetrated primarily to develop his private trading with Mocha and India. This consisted of India's export in jewels, cotton-goods, silk, spices of every kind, wax and odoriferous substances. Verthema bears ample-testimony to this fact.[4] The English destroyed the monopoly of Shahjehan and this led to his aversion for them. In 1618 they swept the markets bare of calicoes, with the result that the officials concerned for loading Prince's junk for the Red Sea, had been forced to fill them with tobacco.[5] One Abdel Hussain Judge in Bowcan's case clearly held that giving debts to Christian merchants was not fair,[6] being against the spirit of Islamic law and indirectly meant to harm their financial stability, so very essential for business.

Though peace seemed to return with the strong rule of Shahjehan, it meant no encouragement to trade as he himself was a great trader and could issue imperial farmans in his interest adversely affecting the interests of general trade in the country. The greed of his officials followed by the innumerable disastrous famines, as alluded to previously, brought about a set-back in trading activities. Like Asaf Khan in Jehangir's times, Mir Jumla under Shahjehan carried on extensive trade operations. The growing external trade was thus hit hard—the very custodians of justice became the parasitic profit earners.[7] As a Persian proverb runs :

1. William Foster, *Early Travels in India* (1583-1619) pp. 111-2.
2. Letters Received by the East India Company from its servants in the East, Vol. V. p. 333, (National Archives, New Delh;i.)
3. Thomas Roe and Dr. Fryer; *Travels in the 17th Century*. p. 144.
4. Jones & Badger : *The Travels of Ludivico Varthema* p. 38.
   Pant, *Commercial Policy of the Mughals*. p. 271.
5. William Foster : *The English Factories in India*, 1618-21; p. XV.
6. *Ibid* 1586-1619 p. 147.
7. Moreland, *From Akbar to Aurangzeb*, p. 148.
   C. H. I. Vol. IV. p. 191.

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Chun Kufr-az Kaaba bar khezad, kuja manad Musalmani': "If apostasy overtakes Kaaba, where would Islam flourish."

Owing to Qandhar wars, the land routes could not be used and trade followed the sea route from Surat to Gombroon. The English compensated their losses by sea-trade. The Dutch diverted their attention to the South and the East, in Persia, Sumatra, Macao and Japan and earned great profits. The rule of Shahjehan was the period of prosperity for them. The English were short of funds and their business was much hampered as their directors did not supply finances. The Portuguese fared badly. In 1633, the French made their first appearance as pirates, and the formation of a "Courteen Association", a rival company in Dec. 1635 meant a great trouble to the English, both at home and abroad. King Charles I having purchased a large number of shares, authorised the use of Royal flag and as such issued instructions to the English subjects to help the successful operations of the association. In 1637-41, a fort was made at Madras. The Headquarters of the Coast-Agency at Masulipattam were shifted to it, resulting in the first territorial acquisition of the East India Company. In 1653, Madras became a presidency of the Company. In 1657, the beginning of the fratricidal war deteriorated trade, the empire being in the melting pot, while the position of the company was strengthened by a change of the charter re-affirming its monopoly to trade with Indies. A new stock of £74 0,000 was floated which was soon subscribed.[1]

Thus the national life of Hindustan became very unstable. In the times of Aurangzeb, for reasons referred to in the above, trade was in the downward trend. Aurangzeb made no attempt to revive trade, his attention being diverted to Wars in the Deccan and in the curbing of his foes—Shivajeeandthe Maharashtra, Sikh and Jats in the North. In 1694, the "Ganj-i-Sawai", the largest boat of Aurangzeb which was reserved for its annual trip to Mecca, was bringing 52 lakhs of rupees from Mecca and several men and women passengers, most of whom were related to the King. "It was looted by the foreigners and the chastity of women violated by them".[2] The Hindus felt shy to make investment in trade, as they were not sure of their security, the Muslims rest contented with their jobs offered under the shadow of the iconoclastic zeal of the Mulla King. The English were in the meantime, busy in laying the foundation of the Empire over which in future "the sun would not set." The Gujrat trade was blockaded by the Dutch, and Aurangzeb had to bribe them. This was the result of his insensate policy. "The traders of Surat appeared again to supplicate His Majesty (Aurangzeb) to get them back the trade which had been stopped

1. *Calendar of the Court Minutes of the E.I. Company* by Ethel Bruce Sainsbury Vol. V. 1655-59 pp. 126-7 (National Archives, New Delhi).

2. *Muntakhab-ul-Lubab*. Khafi Khan, Per MSS. (S.B.U.)p. 427 [*Elliot* Vol. VII. p. 286.

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by the Dutch.[1]" As already noted Aurangzeb paid 12 lakhs of rupees to the Dutch and the latter agreed and allowed the trade of the port. Tea was showing its first appearance in commerce though it was not used in India upto the 17th century. In England it was first introduced by Lords Arlington and Ossory. Till 1666, the Dutch were the suppliers. It was in 1669 that a direct demand was made on factors in India. But during Aurangzeb's time tea was not an important item of commerce.

Aurangzeb, being weary of the Portuguese completely smashed their trade. Khafi Khan says : "The Portuguese policy of conversion irritated Aurangzeb".[2] The English trade also suffered resulting in the closure of the factories at Lucknow, Agra, Ahmedabad. The Surat and Persian trade was meagre, the Madras factory was hard hit by famine. The Bengal factory was only successfully running. Thus with the death of Aurangzeb, the trade of the country both internal and external lost all its pre-eminence.

4. Chief Characteristics of Trade

"The objects of oriental traffic were splendid and trifling", says Gibbons. And this is particularly true of the 16th and the 17th centuries. Only a limited specified foreign goods were in demand which were paid for by our exports of a number of country's products. The foreign goods included articles of necessaries, raw materials and luxury goods for the nobles of the court and seraglio and higher strata of the population. Amongst the imports, the important were gold and silver for coinage, ornaments and display. The other item consisted of the horses for the military. Good horses were bred in Gujrat and Kathiawar and other provinces of India, but for purposes of show and grandeur these formed an important item of imports from Arabia and Persia. In South India horses were not reared, and as such their importation was a dire necessity. The imports of raw materials included raw silk, metals—copper, tin, zinc, lead and quicksilver. The luxury group was a long one and included a variety of commodities like ivory, coral, amber and other needed for handicrafts. Besides, precious stones, costly textiles such as silks, velvets, brocades, spices, perfumes, drugs of all description, China goods, European wines and African goods were also included in the imports.[3]

To meet these obligations India exported various textile fabrics, pepper, minor spices, indigo and other dyes, opium and other drugs and various other articles. The demand for precious Metals being great, and rather insatiable, an attempt to export her goods was always dominant.

Unlike the present era, there was a general deficiency of transport agencies. There being no rail-roads or automobiles, rivers in the North

1. Storia Do Mogor, *Niccolas Manucci*, Vol. IV. pp. 275-6.
2. *Elliot* Vol. VII. p. 284.
3. Moreland, *India at the Death of Akbar*. p. 197.

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and pack animals throughout the country were commonly used. Though there were 200 harbours, small sailing ships were used for coastal trade as already noted. At the close of the 15th century when Vasco de Gama had arrived at Calicut(1498), the Indian seas from Madagascar to Malacca were in the possession of Muslim merchants owning and managing most of the ships, and also carrying on land trade. Other traders only hired out the services for cargoes and passengers. Besides the Muslims, few possessed ships and those were the merchants of Bengal, Guirat and those on the Coromandal coast. On the eastern coast of Africa, where the stealthy march of civilisation had not yet penetrated, they made settlements of their own, and in India these sought the protection of the Mughal rulers and became influential, as they were in a position to make or mar the economic position of a port simply by avoiding it, and thus had an established position at the close of the 15th century. The Malabar ports specially Calicut attracted most of the traffic, and even trade from the far East preferred to call at these ports, some of which occupied the position of entrepot trade centres for the Indian seas.

After the arrival of the Portuguese, the position was entirely changed. The old routes through the Persian Gulf and the Road Sea had to combine with over-land routes for a passage to Europe through Syria or Egypt. The former ones had been closed by the Turks, while on the latter, Egypt charged high custom duties. Thus in European markets the Indian commodities became highly priced. The untiring Portuguese having discovered an entire sea route round the Cape, were in a favourable situation, and monopolised the entire trade. The motive was partly missionary, not aiming at territorial acquisition, they devoted their energies to make fortified ports by force or negotiation. The new sea-route was a monopoly of the Portuguese and others could use it under license, but corruption and bribery amongst Portuguese officials made the licensing rules rather elastic for those who were adept to stoop to low practices.[1] The Muslims were by no means driven out. Being unable to face the power of the Portuguese, they preferred the Coromandal Coast and avoided the Malabar Coast. On various occasions, there were reprisals from both sides. Contemporary writers described this conduct of parties as nothing short of piracy: and in fact on the Malabar Coast, there were regular establishments of the pirates on the look out for their prize. The end of the 16th century saw the downfall of the Portuguese through the emergence of the Dutch and the English on the field.

Though the various Indian states and the Mughal Emperor realised the benefits accruing from foreign commerce, they were rather indifferent to it and did not protect the interest of those who were wronged. Akbar's ships from Gujrat to Red Sea plied under Portuguese license. "The sea-borne trade of Vijainagar was placed practically

1. Moreland : *India at the Death of Akbar*, p. 201.

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in Portuguese hands by the treaty of 1547, while the Deccan Kingdom of Bijapur appears to have been content to quarrel with the Portuguese on land, and in any case could scarcely have hoped to drive them from the ocean.'[1] The Zamorin King protected the pirates, some of whom paid him tribute. Thus the merchants had no protection and managed their affairs themselves.

In the beginning of the 17th century, Western Europe had little demand for Indian goods. The chief item of export was pepper, but Europe did not want necessarily Malabar pepper; indigo was a commodity of limited use in Western Europe, and the cotton piece goods were articles merely of retail trade. India likewise was not keen for the demand of European goods. But in Southern Asia, the demand of Indian cotton goods was great which kept the weavers of Gujrat and the East coast continuously engaged.

Precious metals were being absorbed as was the case in the last century. Hawkins rightly adds : "India is rich in silver, for all nations bring coin, and carry away commodities for the same, and this coin is buried in India, and goeth not out." The same opinion was expressed by Bernier.[2]

Time had become the essence of trade. Says Moreland "The time and cost of transport was not of practically less importance than the danger of the disturbance of markets by official interference, the result was to confine markets whithin limits which now-a-days seem extra-ordinarily narrow, and to make prices depend on the stock of a commodity actually on the spot, rather than on the supply available throughout the world".[3] Time was the dominant factor in the case of imported goods. In the modern times, speedy means of transport and post, telegraphs and telephones, wireless etc. can at once adjust supply to demand, but in the period under discussion this was not so. An order in January was supplied in September *i.e.* in over 8 months, by which time the condition of the market might materially be changed. Thus there was a large measure of uncertainty. It appears that the Bengal ports were less popular than the others, for as late as 1627, the last year of Jehangir's reign, the Governor General of Batavia declared that constant wars and rebellions and frequent administrative changes, had rendered trade in Bengal precarious and that "the estuaries of the Hoogly and the Meghna swarmed with pirates who preyed upon trade and shipping."[4]

5. Influence of Foreign Powers

Though India was regarded as an invincible fort by the ancients being bounded by the sea on three sidess-and the Himalayas in the North and the North-West, it could be penetrated by the foreigners from two routes. The Muslim invaders came from the North-West passes and as such only cared to guard them. The Europeans came

1. Moreland : *India at the Death of Akbar* pp. 202-3.
2. *Bernier's Travels* : I p. 202.
3. Moreland : *India Akbar to Aurangzeb* p. 149.
4. Edwardes and Garrett : *Mughal Rule in India* p. 267.

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by sea. The main powers to come were the Portuguese, the Dutch (the Hollanders), the French and the English :

(*i*) *The Portuguese*. From Alexander to Vosco de gama who rounded the Cape of Good Hope and reached Calicut in 1498, no European power ventured to undertake enterprise. The passage of sea was scarcely dreamed of, and by land, stretches of wide deserts, snow-covered mountains, and the horrors of war-like tribes, provided insurmountable difficulties. Commerce did continue specially through Levant and the Italian cities on the Mediterranean sea. "To the Europeans of the 15th century, India was an unknown land which powerfully attracted the imagination of the spirit stimulated by the Renaissance and ardent for discovery of the Portuguese."[1] In 1503 arrived Albuquerque as the Commander of a squadron and founded the Portuguese Empire. Goa after being captured, was embellished with a strong fortification. Later, possession was also obtained over Daman, Dieu, Salsette, Bassein, Chau, Bombay, St. Thome near Madras and Hughli near Bengal. A major part of Ceylon was also acquired besides the command of the Gulf of Cambay. For one century, Portuguese enjoyed complete monopoly (1500-1600). They were acting as knights errant to propagate Christianity. On the outskirts of the hills of Goa, they cultivated rice, sugar-canes, pine-apples, cocoanuts, beetles and nut-vine. The Portuguese lost all power in the 18th century in shipping and trade, most of them taking to piracy. The hostility of the Indian powers, their religious intolerance, "their clandestine practices in trade, their attention towards the discovery of Brazil and the competition of other European powers hastened their ruin."[2]

(*ii*) *Hollanders* (*The Dutch*). Having captured Amboyna, from the Portuguese, and established themselves as conquerors in Jacatra, Batavia, Malaccas, they were attracted by the trade in pepper and spices. Commercial interests drew them to India where they established factories in Gujrat, on the Coromondal Coast and in Bengal, Bihar, Orissa, entering deep into the Ganges Valley. Their important factories in India were at Pulicat (1610), Qasimbazar, Barangore, Patna, Balasore, Negapattam (1659), and Cochin (1663), Along with the Portuguese, they maintained the monopoly of the spice trade in the East throughout the 17th century. They also became the carriers of trade betwen India and the Far East and thus revived the connection which they maintained in the palmy days of the Vijaynagar Empire. Before the advent of the Dutch, the Portuguese single fleet sailing from Goa to Cambay "would number as many as 150 to 250

1. W. W. Hunter, *Indian Empire*, p. 265.

2. Dr. Majumdar and others, *Advanced History of India* p. 632. *Elliot* Vol. VII (*Muntakhab-ul-lubab*) pp. 245, 283; *Imperial Gazetteer of India* Vol. III p. 259;

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carracks; now ony one Portuguese ship sails from Lisbon to Goa in the year."[1]

The cruel massacre of 10 Englishmen, 9 Japanese at Amboyna in 1623 marked the climax of Dutch hatred for the English in the East. Though the Dutch began to confine themselves more to Malay Archipelago and the English to India, the former did not cease to be commercial rivals of the latter till 1759 A. D. During 1672-74, the Dutch frequently obstructed communications between Surat and the new English settlement of Bombay, and captured three English vessels in the Bay of Bengal. In 1698, when the Mughal Prince Azimushshan visited Burdwan,the Dutch merchants complained that while they paid 3½% on their trade the English paid only Rs. 3000 per annum, and requested that the Dutch might be granted similar privileges.[2] In the middle of the 17th century when the Dutch had established in India, they worked up silk trade in Qasimbazar. "At that period the total output was about 2½ million pounds (Tavernier gives the figure to be 100 livres), out of which one million pounds were worked up locally, ¾ million were exported raw by the Dutch, ¾ million distributed over India, most of it going to Gujrat, but some being taken by merchants from Central Asia".[3] The Dutch Export was of course a new feature of trade, thir demand was unsatisfactory.It is probable that the production of silk was greater than that of the time of Akbar.

The new competition of the Dutch who were experts in buying and selling "raised prices considerably so that according to Pyrard, what formerly cost one sol, cost them (the Dutch) four or five."[4]

The fall of the Dutch was brought about by their own short-sighted policy. Their commercial policy was deliberately based upon monopoly in spices from the first to the last, and was destitute of sound economic principles. "At present the Dutch flag flies no where in India. The knell of Dutch supremacy was sounded by Clive in 1759 when he attacked them (the Dutch) at Chunsurrah, both by land and by sea, and forced them to an ignominious capitulation."[5]

(*iii*) *The English.* The Governor and the Company of Merchants Travelling in the East Indies was incroporated by a Royal Charter on 31-12-1600 having been dirctly called into existence by the grievance of monopoly prices placed upon pepper by the Dutch. The First Voyage was undertaken in 1601by five ships whose cargo consisted of £ 28,742 in bullion and £ 6,860 in goods, the latter being chiefly cloth, lead, tin, cutlery, glass, quick silver, muscovy and hides. Their destination was Atchin in the Far East (Sumatra), their first factory was

1. W. W. Hunter, *Indian Empire* p. 270.
   Majumdar, *Advanced History* p. 634
2. *Ibid.*
3. Moreland, *India at the Death of Akbar*, p. 173.
4. Pyard quoted by Moreland, *India at the Death of Akbar* p. 244.
5. W. W. Hunter, *Indian Empire* p. 270.

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established at Bantam in Java in 1603. The return cargoes partly captured from the Portuguese comprised of raw materials, fine calicoes, indigo, cloves and mace. The English Factories were established in Surat in 1612-15 and at Musullipattam in 1610. "In 1619, ten ships were despatched by the Company with £ 62,290/ in precious metals and £ 28, 508 in goods, the proceeds brought back in a single ship were sold for £ 108,887. During the 17th century, the English made no advance in trading."[1] By the massacre of Amboyna in 1623, as referred to in the above, the English were driven out by the Dutch from the Spice Islands. Early in the 18th century in India, Spice trade flourished. During the 20 years ending 1728, the "average annual exports from England of the Company were £ 442,350 of bullion and £ 92, 288 in goods. The average imports were valued at £758,042 consisting of calicoes, and other woven goods, raw silk and diamonds, tea, porcelain, drugs, salt-petre etc. In 1772 the annual sales at India House reached the total value of £ 3 million sterling, the shipping owned by the company was 61880 tons."[2]

In Bengal the staples could not be purchased near the coast, and as such, the company was obliged to bear all the vexatious taxes levied under the Mughal Government by the various officers concerned. In 1651 Sultan Shuja issued a Farman, granting the Company the privilege of trading for a fixed payment of Rs. 3000/- annually. Another Nishan granted in 1656 A. D. laid down that "the factory of the Company be no more troubled with the demand for customs for goods imported or exported either by land or water, nor that their goods be opened or forced from them at under rates in any places of the government, which they shall pass and repass, up and down the country, but they shall buy and sell freely and without impediment."

A number of Farmans and Nishans, about eight in number were issued from 1633 to 1712 besides many imperial farmans, as already noted, for affording concessions to various trading associations, foreign and local. Mautaqid Khan and Mohammad Zamana, Governor of Orissa issued a parwana on 25th. Urdibahist in the 6th year of the reign of Shahjehan in favour of English Captain Cart-wright (1633). English merchants were permitted to make wooden houses for their factories at Wazirabad and Musalipattam and were allowed exemption from local duties. Four years after, Shahjehan issued a farman (dated 24 Jamadi, II, 1047 H. 3. 11.1637) in the name of Bornford repeating concessions of exemption from duties and tithes at Surat, Broach and a free passage on the roads and ferries. Again Sultan Shuja (Julus 22, 1059 H) gave a Nishan (Farman) in the name of Parel Gabreil, the Royal physician who was proceeding from Surat to Agra under the above conditions. Again Shahjehan (25 Shabaan, 1060 H), Sultan Shuja (6 Ramzan 1061 H.) and another on 21 Jumada II, 1066

1. *Ibid.*
2. *Ibid.*, pp. 443-4; *Imperial Gazetteer of India* III, p. 269-60; East India Co. Records, Letters Vol. I. Introduction p. XXIII (Charles Daurer. Ed. 1896).

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H ordered that English merchants coming from the ports towards the interior should not be vexed by custom authorities. As late as 5-1-1716 the English were granted a parwana in the name of John Surmon giving him liberty to trade in Golcunda in consideration of 1200 pagodas. Officers were instructed to help realisation of advances by English merchants to weavers.[1]

The Company also procured a Farman from Shaista Khan granting exemption from the payment of custom duties in 1672 on the ferries and roads. But it clearly laid down that besides 2 percent of ordinary duty, 1½% *Jazia* would be charged. Inspite of the above Farman, the Company's agents in all places, Bombay, Madras, Bengal, complained of vexatious taxes. Being dissatisfied with such state of affairs, the Company began hostilities against the Mughals in 1686, but met with defeat at Hoogly. For 18 years after Farukhsiyar's Farman, trade suffered owing to Maratha warfare and loot activities.[2]

Inspite of the various drawbacks, owing to European's influence, in 1875, the exports of the country were valued at £430,000 and imports £860,000 besides private trade of the foreigners. Half of the country's trade was through the East India Company who earned 150 percent profits in 1682.[3] Trade was more diversified in nature than in the times of the Portuguese. Silk and spice exports were important though calico export dwindled owing to the competition of machine made stuffs. Indigo and sugar exports further increased when the emancipation of the slaves in the West Indies paralysed for a time the sugar industry there.

(*iv*) *The French.* The French were the last European powers to compete for commercial gain in the East with other Europeans. At the instance of Colbert, the "Campaignie des Orientales", was formed on 1664. The first French Factory in India was established by Francois Caron at Surat in 1668. Pondecherry grew up of Valikondapuram, the village having been obtained from the Muslim Governor in 1673

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1. The above farmans were found in the "National Archives, New Delhi. (They were photo-type copies of the original Farmans bound in one volume). They came from the collection of Horace Haymen Wilson, England. The 8th Farman though not pertaining to our period, speaks of the conditions of weak rule under Aurangzeb who became so weak as to grant villages to Gumashtas of Company's servants. These Farmans were disobeyed. Jehangir, Akbar and even Humayun's Farmans were disobeyed. (*Ikbalnama-i-Jehangiri in Elliot.* VI 493). The first institute of Jehangir was to forbid levy of customs and road duties but they were disobeyed as per commentary of *Elliot* which I admit to be correct.

2. Majumdar : *Advanced History of India.* p. 642.

3. *Imperial Gazetteer of India.* III pp. 259-60.
"A century later the sales of the India House reached 3 million sterling... The volume of trade in 1834 was :

(i)	Imports of Merchandise.....	Rs. 4,26,11,060.
(ii)	Exports do	Rs. 7,99,34,200.
(iii)	Imports of gold and silver	Rs. 1,89,30,230,
(iv)	Exports do do	Rs. 19,47,410;

Taking the rupee to be of 2s, the trade was £14,342,290." The main causes were the high freight charges and the long duration of the journey.

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and Chandernagore in 1690-92 when Bengal Nawab Shaista Khan granted a site to the French in 1674. Chandernagore developed into an important place through personal courage and perseverence, "amid the clash and arms and clamour of falling kingdoms". The European, rivalries between the Dutch and the French, supported by the English adversely influenced the position of the French in India. Pondecherry was captured by the Dutch in 1693, but was again returned through the treaty of Ryswic in 1697. In 1706 it had a population of 40,000 as compared to Calcutta in the same year which had only 22000, But the French lost their influence in other places, and their factories at Bantam, Surat and Masulipattam were abandoned by the beginning of the 18th century. The resources of the company were exhausted by that time, till in 1720, it passed through very bad times, even selling its leases to others.

Prosperity returned to French colonies under the administration of Lenoir and Dumas between 1720 and 1748. The French occupied Mauritius in 1721, Mahi on the Malabar Coast in 1725 and Karikal in 1739. The interests of the company were commercial, but after 1742 political motives began to overshadow the desire and ambition of a French Empire in India, which when challenged by the English, opened a new chapter in history after defeats of Dupleix. The French were equally unfortunate with the Danes. The home manufacturers had become discontented on perceiving the increasing use of gold and silver brocades and painted cottons. Like their fellow traders in England, they succeeded in procuring an eddict in 1687 for immediate prohibition of this branch of commerce, and it was with considerable difficulty that the company obtained permission to dispose off their imports on hand or expected by the next ships. The sale of piece goods even to foreigners were forbidden, on the supposition, that those of France would be purchased instead, and a high duty was laid on raw silk when imported in high quantities. Their trade languished under such disparaging conditions.[1]

6. Volume of Trade

The foreign traders were the chief cause of the expansion of our foreign trade. Through a system of advance to the local artists, specit ally for the articles of ordinary use as distinct from luxury and rare ar-products, the advance being called "Dadan", the manufactures were developed and improved. The merchants looked after their work in the labour's cottages, and secured the delivery of the goods in times *i.e.*, just before the shipping season or westward monsoon winds. For this purpose a number of agents were engaged.[2] The Farman noted previously (Farman of Farrukhsiyar) gives some idea, and others also cast a reflection upon the practice of giving advances which were

1. R. Montgomery : *History of Indian Empire*, p. 234.
   Majumdar : *Advanced History of India*, p. 644.
2. Sarkar : *Studies in Aurangzeb's reign* pp. 271-2.

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to be realised through the help of governmental activity. Only a small portion of work was produced in the Kothies of the company, though for larger volume of work, the company's gumashtas used to visit the workmen in their cottages to see that the advance taken by them was duly utilised. As already noted, at Qasimbazar alone, in the middle of the 17th century, the Dutch employed 700 to 800 silk weavers, and the English and the French probably 300 to 400 each, but mostly in cottages of these men.[1] But inspite of these risks, our foreign trade was in the ascendency though some terrible famine or an internal warfare brought about a slump.

Till the end of the 17th century the volume of trade was rather little, the total amount of the import duty realised being of than 30 lakhs of rupees a year. The land revenue was 111 times that amount. The exports of the East India Company from 1612 to 1672 were nearly one lakh pounds a year equivalent to 8 lakhs of rupees per annum. In 1681 it were Rs. 230,000 for Bengal alone.[2] Though the trade of the Dutch was practically the same, that of the Portuguese had been much lessened. Further, speaking of Indian trade Sarkar adds : "There is no evidence to show that any very considerable volume of trade by sea was in the hands of the native merchants, but a small amount of traffic continued to be carried on by the overland route to Persia, Turkey and Tibbet."[3] Till the middle of the 17th century the trade with the east was confined to spices from the Archipelago and Spice Islands, raw silk from Persia and salt-petre and indigo from India. India also exported finer cloths and some silk manufactures. Cotton goods were also exported to Persia and the Eastern countries. In the foreign markets, India had a monopolistic position in cotton goods. China and Persia were the main suppliers of raw silk to England.[4]

Taking into consideration all the various kinds of vessels current in the period like the carracks, pilgrim ships, ordinary Indian ships, Junks and coasting crafts which occasionally travelled outside Indian limits, differing from one another in their carrying capacities, Moreland made an attempt to calculate the total tonnage of Indian trade, but his estimate is as correct as the estimate of the Indian population during the times of Akbar. And in the absence of a correct data there could be no way out, but to rely upon estimates arrived at by whatever data available, to us. The average capacity of a carrack has been taken to be 1800 tuns for European trade and some what less for voyages to China and Japan; that of the pilgrimships between India and the Red

1. *Bernier's Travels* p. 430 (Part I);
2. Sarkar : *Studies in Aurangzeb's Reign*. p. 273.
3. *Ibid.*, p. 274.
4. C. J. Hamilton : *Trade between India and England.*

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Sea in the 15th century 1000-1200 tons but very few approached to this amount.[1] Junks could carry 30 to 400 tuns and coasting craft which occasionally took part in foreign trade to Ormuz, Red Sea, Pegu etc., 30 to 60 tons. Their names are numerous : Jelbas, plying to Arabia, Terradas in Persian Gulf, Proas on the Malabar coast, and so on, but none more than 60 tuns capacity. Moreland calculates the Indian shipping to Europe to be 6000 tons (1590-99). Thirty-three carracks left India for Europe. His calculations for the coast of Africa are 1000 tuns; for Red Sea 10,000 tuns and for Persia a little less. Thus according to him the total tonnage with countries on the West comes to 25,000 to 30,000 tons. The trading season lasted from September to January on the West coast and on the East Coast upto April, specially for trade to Malacca. The ships had to leave for India from Lisbon before Easter reaching India in September or October. As for trade to Pegu, Java and Sumatra, the estimate is 5000 tuns for Pegu; 3000 tuns for Malacca from Goa or Cochin; this being for Japan; and to Malaccas proper 1000 tons. Moreland estimated the whole trade of India including the coastal voyage ships tonnage going there to be 17000 tons and the rest 10,000 tons to 27000. Thus the total volume of trade to Europe and the East was a little less than 60,000 tons or 24,000 to 36,000 tons net of present tons.[2] "The addition to export prices required to cover the cost and risk of transport was very great and the essence of the business was to deal in those commodities in which the difference in prices afforded an adequate margin, a margin very much wider than any modern merchant can hope to secure."[3] Mun shows that the annual needs of Europe in spices, indigo and raw silk could be obtained in the East Indies for about £511,000 while at Aleppo for 1465000 pounds *i.e.*, three tims the value in the East Indies. Goods brought in India for £100,000, would worth £492,000 in England. The goods were disposed off at 4:1 or even higher proportions. This high profit covered interest and risk of loss. The items of outlay and risks and interests were high as the time occupied in traffic was great. Large risks of weather and pirates and enterprise of profitableness of the venture at the destination had to be encountered. Markets were extremely narrow. The estimates of net profit are not possible to be made.[4]

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1. Pyrard writing of our period recorded 1000 to 1200 tons. "In 1612 when Sir Henry Middle-ton exacted reprisals from the Indian ships in the Red Sea he laid an embargo (1500 tons) on the Rahim; the Hasani (600 tuns, the Muhammadi (1500 tons) all belonging to Surat. Other ships noted are Salamati of Diu (450 tons), Kadri of Dabul (400 tuns); pilgrimships (ranged from) 400-1500 tons.

   (Moreland : *India at the Death of Akbar* p. 231.)

2. Moreland : *India at the Death of Akbar*. p. 237.

3. *Ibid.*, p. 237.

4. Mun. : *Discourse of Trade*;
   Moreland : *Indiaat the Death of Akbar* p. 238.

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The annual exports in English vessels from India to Europe (in lakhs of rupees) are given below :[1]

Period		From West Coast	From East Coast	Total
Amount	1620	$2\frac{1}{2}$	..	$2\frac{1}{2}$
,,	1628	6	..	6
,,	1640	$2\frac{1}{2}$-3	..	$2\frac{1}{2}$-3
,,	1643-48	$3\frac{1}{2}$	..	$3\frac{1}{2}$
,,	1649-53	2	1	3
,,	1658-60	5	3	8

The volume of Dutch trade from 1625 onwards was larger than that of the English, though estimates on the English lines cannot be computed for profits which the Portuguese were enjoying for ventures about which the English were always complaining.[2]

The poverty of the masses and the limited demands of the upper classes to rarities only, kept the volume of trade within narrow limits at the beginning of the 17th century. For payments of exports, India mostly required gold and silver; England was averse to exporting these metals. The merchants were willing to export their merchandise of England for imports from India. During the reigns of Jehangir, Shah-jehan and Aurangzeb, the activities of the Dutch were prospering in the commercial field, and the English modified their trend with East Africa and Asia and established lines which promised unlimited expansion in their trade between the East and the West.

Except a little amount of traffic in the overland trade to Persia and Arabia, no considerable amount of traffic was in the hands of the natives. India was practically self-supporting and obtained little by international exchange, except the precious metals, together with some luxury articles favoured only by the rich. The exports from England and other European powers were in the main paid for by cotton goods, pepper, indigo and salt-petre.[3]

In February 1634, the English secured a Farman which gave liberty of trade in the whole province of Bengal but restrained shipping only to the port of Piplya. There was a considerable decline in the trade of the country during 1630-37 on account of famines in India, but it recovered from 1638-1653. The imports chiefly consisted of broad cloth, coral, elephants' teeth, mercury, tin, lead and vermilion. Coral and elephants' teeth came from Africa. Again after 1653; trade got a set back as it was thrown open to private vessels. The trade of

1. Moreland : *Akbar to Aurangzeb*. p. 104.
2. Moreland : *Akbar to Aurangzeb* p. 104.
   Edwardes and Garrett : *Mughal Rule in India*, p. 269.
3. C. J. Hamilton : *Trade between India and England*;
   Sarkar : *Studies in Aurangzeb's Reign* p. 274.

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the Company was firmly established in 1657. Then the trade centres were transferred to Madras, Bombay and Bengal. The following figures speak of the Surat-London trade :[1]

(In Mahmudis : One Mahmudi is equal to 11 d.)

Particulars	1638-39 Royal Marry and Swan)	1639-40 (Discovery)	1640-41 (Crispian)
Total value of Cargo	1,405,200	816,200	1,189,100
of which Indian goods	959,500	398,300	419,000
do Re-exports.	445,700	417,900	770,100
Details of Indian Goods :			
Cotton Goods	412,400	198,300	205,200
Cotton yard	53,800	20,200	2,100
Indigo	362,300	118,900	206,200
Salt-petre	17,000	5,500	..
Pepper	101,200	..	..
Sugar	8,000	46.700	..
Ginger	3,300	8,700	..
Miscellaneous	1,500	..	5,500
Details of Re-exports :			
Persian Silk	409,900	417,900	728,200
Bantam Sugar	3,100	..	
Bantam Pepper	..	..	39,900
Aloes, myrrah etc.,	2,700	..	2,000
English goods returned unsold	30,000	..	..

It was only after 1649 that the English exports from East coast and the Bay of Bengal became important. Moreland estimates the value from 1649 to 1654 at one lakh rupees a year, only small proportions of which were re-exports. For 1654-57, as the trade was not open, no such estimates have been adduced.

7. Exports and Imports

In the foregoing pages a full attempt has been made to enumerate the various items of imports and exports at various places. A little discussion about some important items is, however, necessary. We shall first take up the exports.

1. Moreland : *From Akbar to Aurangzeb* p. 101;
W. Foster : *English Factories* (1634-36). pp. XXXVI.

2. *Ibid* Moreland : *Akbar to Aurangzeb* p. 103. (Referring to the details of exports Moreland continues : "....the value of 1649, 1649-50 and the following year may be put at Rs. 50,000, Rs. 96,000 Rs. 1,30,000....")

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A. Exports :

(*i*) *Opium*. Besides being an item of local trade, it was also exported to foreign countries. Being grown in Bihar, Malwa for local consumption and exports to Rajputana, Berar and Khandesh, it was carried to many places by sea. India's customers were Pegu (Lower Burma), Java, Malay-world, China and Perisa. Bihar opium was exported through Bengal and Khandesh and Malwa opium through Surat.[1]

(*ii*) *Cotton*. New cotton was only exported to Persia and Arabia. It was not imported into England and Europe till the American war of Independence. It was mostly locally consumed. Khandesh and Berar were the chief producers besides Bengal. The little exports were made by Surat.

(*iii*) *Cotton Yarn*. For manufactures of wicks, it was exported from Surat and Ahmedabad in large quantities.[2] Stockings were also made. The yarn was mixed with silk for mixed cloth. From St. Thome in Madras, vast quantities of red-dyed cotton were exported to Pegu, as Caesar Frederick noted in about 1575, the chief merit of the article was that the more it was washed, the brighter the colour became.[3]

(*iv*) *Cotton Fabrics*. These fell into five classes : .1 White ordinary, 2. Coloured ordinary both plain in texture and known in England as calicoes, 3. Flowered, 4. Printed called chintz and 5. Muslins. In the 17th century a market was found for them in England, and prior to that, Sindh, Bengal, Orissa and other places on the East Coast exported these; specially the white cotton cloths were exported to places in Southern Asia, Indian Archipelago, and in small quantities to Japan. Bafftas or cotton cloths dyed red-blue were sent to Mozambique, Abyssinia and Phillipine Islands, Sumatra and the Far East. The dyeing work into black or red blue was done at Ahmedabad and Broach. Agra Bafftas were used locally.[4] Cotton fabrics and cloths worked in gold and silver came from Benares, Ahmedabad, Bihar and Agra. It was exported to Asiatic and European countries both from the east as well as from the Western coasts.[5] The place of honour amongst the exports was occupied by the Muslins. Chintz was both locally consumed as well as exported to Europe and Asiatic countries.

(*v*) *Silks*. At the close of the 17th century Europe became a good customer for our taffetas and brocades. Dyeing and weaving of silk having been improved by the East India Company in Bengal by importation of dyes, export of silk goods received a good impetus. Tussar being the speciality of Orissa, was exported from Orissa ports.[6]

1. *Bernier's Travels* I. p. 446.
2. *Tavernier's Travels*. II. p. 8.
3. Sarkar : *Studies in Aurangzeb's Reign* p. 276.
4. *Tavernier' Travels* I, pp. 5,27,72.
5. *Storia de Mogor* ii. pp. 83,125.
6. *Khulasat* : Per MSS. p. 25a;
   Chahar : Per MSS. p. 94b.

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(*vi*) *Diamonds* : The diamond fields extended from Chhotanagpore (Sambalpore) southwards to present Nizam's dominions. Golconda was a famous producer and Goa the exporting port. Later on Bombay, Chaul and Surat came into prominence for its export. The Gokradesh in the sub-Himalayan tract lying in the Purnea district was famous till 1612 only.[1]

(*vii*) *Long pepper.* Bengal and Hijili ports were engaged in its export besides Malabar. The round pepper and the black pepper were exported from Malabar and it was this commodity which brought the Portuguese to the coast.

(*viii*) *Ginger.* It was exported from Orissa and Bengal.

(*ix*) *Sugar.* Small quantities were exported from Hugly in Bengal. The white sugar made at Agra was locally consumed. The foreign exports consisted of moist sugar or molasses or gur and dry brown sugar. The Madras coast depended upon imported sugar. France imported sugar from the land routes and so did Persia and Kabul.

(*x*) *Lac.* The Dutch exported it to Persia for manufacture of red colour.

(*xi*) *Salt-petre.* It was exported to Europe as a material for making gun-powder.

(*xii*) *Indigo* : The production of indigo has been dealt with in the Chapter on Raw Materials. It was mainly exported from Bengal ports. Biana, Sarkhej, Golcunda and Khandesh were important producers, the first taking the lead in quality, and sold at 50 percent higher prices *i.e.*, Rs. 36/- to 40/- per maund of 60 seers as against Rs. 15/- to Rs. 20/- per maund of 42 seers fetched by Gujrat indigo.[2] As the commodity was used for dyes and cloth washing, it had a large local demand specially in the vicinities of Agra, Masulipattam, Dacca, Qasimbazar and other places. Ahmedabad drew its supplies from Khandesh. All cotton manufacturing centres needed it.

The following chart gives a correct picture of the export trade of the 17th century[3]:—

Sea-ports and Coasts	Principal Exports.	Destination
Sind (Lahribander)	Calico	Persian Gulf, Eastwise to Goa.
Gujrat		
Cambay, Ghogga Diu, Surat	Cotton goods, yarn indigo(also pilgrim traffic)	Red Sea, Persian Gulf Aachin, Goa.

1. Sarkar : *Studies in Aurangzeb's Reign.* p. 279.
2. *Tavernier's Travels.* II p. 9.
3. Moreland : *From Akbar to Aurangzeb* p. 57.

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Konkon Chhaul, Dhaboi, Rajapur.	Calico fancy goods little papper (also pilgrim traffic)	Do
Goa Goa (Bhatkal)	Trans-shipment, local exports	Persian Gulf E. African Lisbon, Malacca and beyond Ceylon (Cochin to Lisbon) Malacca and Ceylon beyond mainly coast-wise, Calicut, Red Sea.
South Coast Quilon, Tuticorin, Negapattam.	Calico, pepper	Mainly coast-wise Negapattam to Malacca and beyond.
Coromandal Coast South: St. Thome, Pulicat.	Fancy goods, Calicoes, Muslin Yarn.	Malacca and beyond Aachin, Pegu and Tennasarim, Coast-wise to Goa Malabar
North : Masulipattam	Calico, Muslin, Fancy goods and yarn	do (Persian Gulf)
Gingelly Coast Vizgapatam, Bimlipatam.	Provisons (rice and oil-seeds)	Chiefly coast-wise.
Bengal Hoogly, Pipli, Balasore, Chittagong.	Provisions (rice and sugar), Muslins.	Pegu and Tennasarim, Malacca and beyond. Aachin, Coast-wise.

There was no markt for paper, arms, leather goods, woodwork, shawls, carpets and glass-wares.[1] In the foreign countries exports of these were rather very negligible. The Kabul and Qandhar traffic has already been described.

The balance of trade was unfavourable to England during 1635-1650, and this led to the Court to scrutinise carefully its exports (and particularly the gold and silver). England had to pay gold and silver to India for excess of its imports.[2]

The prices of pepper fluctuated as follows :—

29-9-1635	at 16 d per pound[3]	
1-6-1636	at 11½ d to 13½ d per pound	
21-8-1640	at 2s-2d.	do
11-8-1647	at 15 d	do
13-3-1650	at 12 d	do (4)

The amount of pepper bought for England was 1,030,000 lbs. in 1694.[5]

1. Sarkar : *Studies in Aurangzeb's Reign.* p. 282.
2. Company's old Records : *Calendar of the Court Minutes of the E. I. Co.* (1635-39) Ethel Bruce Sainsbury. Introd. W. Foster I to XIII.
3. *Ibid.*, p. 99; *Court book* XV p. 217.
4. *Ibid.*, p. 179; II p. 52, 351; *Court book* XX, p. 36; III p. 28.
5. *First Letter Book* pp. 27; *Indian Record Series*; Old Fort William Bengal; G. R. Wilson ; *Selection of official Documents I*, p. XXVI.

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The profits of the Company on the first two voyages, all free, amounted to 95 percent whilst the profits of the third voyage were 234 percent.[1] A few interesting figures regarding the prices at which the exported articles were purchased by the company are given below :

i Indigo Biana : 40 to 60 Mahmudis (MD. to be of 60 srs.)[2]

ii Sarkhej indigo near Ahmedabad 20-30 M. Tavernier differs.

iii Wagar indigo 8 to 10 M.

iv Baffetas of Broach, fine, 10 to 50 M. per piece, cheaper at Naosari, a day's journey from Surat.

v Cotton-wool 40-60 M. per candy available in plenty.

vi Cotton yarn course or fine 8 M. to 10 M. per maund.

vii Calico broader than other cloth of various prices.

viii 21 covad long and one yd. wide 6 M.

ix Byrammy resembling Holland cloths. They were 9 covads long and one yard wide 6 M. diverse prices.

x Serribaffa fine stuff cloth, where of the Moors make clothing 18 to 19 covad in length and one yard wide 6 M.

xi Fine linen of Cochin 2 yards broad, prepared at Cochin called Kacha de Comree. This found a good market in England for shirting.

xii Ready made quilts of various pieces. These were available at Brampore. White and all sorts of painted stuffs were exported in abundance.

xiii Gum-lac : It was used for colouring and by goldsmith for filling. 8 to 9 sticks for thousand of the best quality. Price White saunders 8M. per maund; Red 6 M. Per maund, yellow 8 M. to 20 M. per md.

xiv Spikenard 15 to 20 per maund (Mahmudis)

xv Glibanum 4 to 5 M. do

xvi Myrrah from Mocha 10 M. per maund.

xvii Turbith 5 M. per maund.

xviii Cumin seed 4 M. per maund.

xix Rice at a rial for kuntal, Not in Mahmudis.

xx Green ginger 8 M. per Md.

xxi Asfoetidica in great abundance 80 M. per maund.

xxii Sal ammoniac 9 or 10 M. per maund.

xxiii Folium indicum 8 M. do

xxiv Cardamoms, lignum aloes and camphor at varrying price

xxv Aloes 8 M. per maund.

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1. *Ibid.* XXVI, XXX; Sir Sambrook's Report : *India House Mis. Records.*
2. These prices can be compared with Tavernier's prices mentioned before. The difference is due to the various periods which have been quoted.

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xxvi. Dried Myref balan, 2 M. per maund.
xxvii. Opium 8 to 120 M. per maund in great abundance.
xxviii. Cayro 16 M. per maund.
xxix. Borax in small tablet pieces and kept in oil, worth 10 to 12 M. per maund.
xxx. Calmus comes from Kabul and Kashmir. Used for dainty and travel; at varying prices.

The above list explains the details of export prices.[1]

Imports

Though attempts have been made to detail items of imports into India from various countries, a few details are necessary to be discussed. The balance of trade being in India's favour, there was a large demand of precious metals which the Britishers did not like as detailed before. In March 1650, the Directors resolved to prohibit the exportation of the following goods: Broad cloth, lead, quick-silver, vermilion, coral, elephant's teeth. Importation of calicoes, indigo of all sorts, cardamoms, cloves, cinnamon, musk, aloes, soccatrine, salt-petre, black and white pepper, nutmages, mace, silk, cotton yarn was prohibited. In the event of any of the said goods being taken abroad in Company's ships, they were to be forfeited and held to belong to the Company. The following goods were allowd: "Oblibanum, tincal, gum-lac, seed-lac, Shellac, tamarind, myrah, cowries, dragons blood, cassia-fistula, lignum, china roots, dried myro-balans, consernes of all sorts"[2] This step became necessary when the Government of England and the court of Directors found that their prohibition of gold exports had no effect. The same held true for silver. Even the license for the export of gold was given in November, 1635, the limit being £ 30,000. The limit was successively raised to £60,000 free of customs.[3] Letters patent were issued in 1618 to the effect.

The chief item amongst the import was metals of precious nature. Throughout the Mughal age India maintained a favourable balance of trade. Gold was imported principally from Archipelago, China, Japan, Red Sea, and from Sofala and the Mozambique. Silver came from Ormuz and Japan, Malacca and other neighbouring markets, the latter being the channel through which Silver from Maxico flowed into the country. Gold and silver were used for coinage, ornaments of display and hoarding. Bernier maintains this view. Badayuni nicely quotes a sound currency maxim: "Gold my son, is fit to be enjoyed; for hoarded gold is no better than stone". Thus the remark of a European traveller, an adherent of the mercantilist policy is irrelevent. 'It is lawful for any nation to bring in silver and fetch commodities but a crime not less than capital to carry any great sum thence."[4] Mandalslo also mentions that it was prohibited on Pain of

1. *Court Minutes of the E. I. Company* I pp. 28-31· Notes taken out of Keeling's Journal at Sea. 28.3.1614.
2. *Ibid.*, (Minutes) Vol. III. p. 59.
3. *Ibid.*, Vol. I XIX
4. Radha Kamal Mookerjee : *Economic History* 1600-1800 in U. P. Journal *of Hist. Sec.* Vol XIV Pt. II. p. 68 (Dec. 1941).

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death to export silver or gold or coined brass out of the country. Terry refers that an Indian ship coming back to India after the Red Sea transactions alone, was usually worth 2 million sterling, most of it in gold and silver. Believers in mercantilist policy, the Mughal Emperors sought to encourage luxuries and industrial products of India and discourage the export of precious metals. "The amount of bullion imported into the country gradually increased. At the beginning of the 17th century (1601) the amount of bullion exported by the East to India was valued at £ 52000; while at the end of the century the export totalled about 8 millions. Bengal alone absorbed in one year (1681) bullion worth £320,000".[1]

Another important consideration of the period was the existence of private trade amongst the servants of the East India Company whose emoluments were rather low. The existence of private trade was in the notice of the Directors at London and their remostrance were frequent and vehement. "We permit none", they wrote, to Bantam in 1613, "but forbid all our factors and servants whatsoever of any sort to have any particular trade for himself or friend in the private upon our utter displeasure"[2] Kerridge and his colleague bluntly declared their inability to deal with so wide-spread a traffic and urged that "restraint at Home" was the only remedy. But in truth, all attempts at absolute restriction proved futile. The Company's business left most of the factors plenty of leisure, the profits to be made were temporarily high, and it could scarcely be, expected that men would leave such opportunities. Kerridge's salary was only £150 - per year. The low salaries combined with the system of paying them only one-third in order that they may not have money to engage in private trade, left them to a miserable course. In some cases a factor's salary was only £ 20 yearly or even less.[3]

One of the returns compiled in 1619 added the following details as to the disposal of money :[4]

Financial year	Received from Home	Re-exported in money.	Reported in goods	Cost of ships and Victuals.
	£	£	£	£
1613-14	106,000	18,810	12,446	..
1614-15	107,000	13,942	23,000	..
1615-16	107,000	16,660	26,065	2,72,544
1616-17	429,000	52,087	160,506	..

1. S. A. Khan : *East India Trade in the 17th century.*
"From 1708-1750 the export from India amounted to £ 426487.
In 1751 to 1810 it was reduced to £ 190,694". (Macragar : *Commercial Tariffs*).
2. *Court Minutes*. V. p. XXXVI.
3. *Indian Record Series, Old Fort William in Bengal* IV. G.R. Wilson pp. XXXVII-XXXVIII.
4. *Ibid.*, VI. p. XL.

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On account of four year's trading, only £65,000 were given to Exchequer and this might be partly due to private trading.

The items of imports into India from England are explained from the list of goods bought from England and vendible in India. These included cloths of all sorts of light and pleasant colours, pleasing to the eye as Venice-Reds, stamels, scarlets, for presents and for gentry greatmen popinjey greens of the bright dye, cinnamon colours; light yellow with others. Dark or sad colours were not demanded in the country. Two hundred to 300 cloths were yearly sold in Agra for 4,5, and 6 rials per covad, verseys both devon and keigh 6, 7, and 8 per covad. The other commodities are mentioned below:

"Baize of the above colours. Prices varying.
Quicksilver 60 or 63 quintals. 445M.
Red lead 100 quintals 7 or 8 rials per quintal.
Lead in pigs 8 M. per ½ maund.
Tin in blacks of 50 lbs. or some very great quantity 40 M. per maund.
Malacca base quality only 20 M. (This was tin).
Vermilion 20 quintals 7 M. per catile.
Elephant's teeth 1450 M. per bahar. This is 15 mds. ¾ grand poise
Red corals, drinking glasses, trenches, toys, Varying prices according to the quality and size.....[1]
Fruits, dried and green from Kabul and Qandhar side."

The other miscellaneous items amongst the imports were horses, elephants, raw-silk, ivory, coral, novelty goods, luxury goods and copper. Some quicksilver was supplied from Lisbon by way of Red Sea. China also sent supplies of raw-silk and porcelain. Europe supplied mirrors, wines, spirit glasses and other delicacies for thePortuguese and the foreigners. Moreland rightly says "The bulk of the imports came from Asia so that European merchants who desired to trade with India, were faced by the initial difficulty of providing remunerative outward cargoes."[2]

The internal trade along with the coastal trade has already been discussed in the Chapter on Marketing facilities.

8. Ports

It has been truly said that the 'richness of a port depends upon its hinterland'. The hinterland must be well-served with a good system of the means of communication. Ports on creaks and mouths of rivers which provide facilities for protection to ships, generally develop into important ports. We have discussed several ports under Chapter VIII. We shall see that, in the period under review there

1. *Letters Received* : E. I. Co. Records Vol. I, pp. 32-4.
2. Moreland : *From Akbar to Aurangzeb*, p.54.

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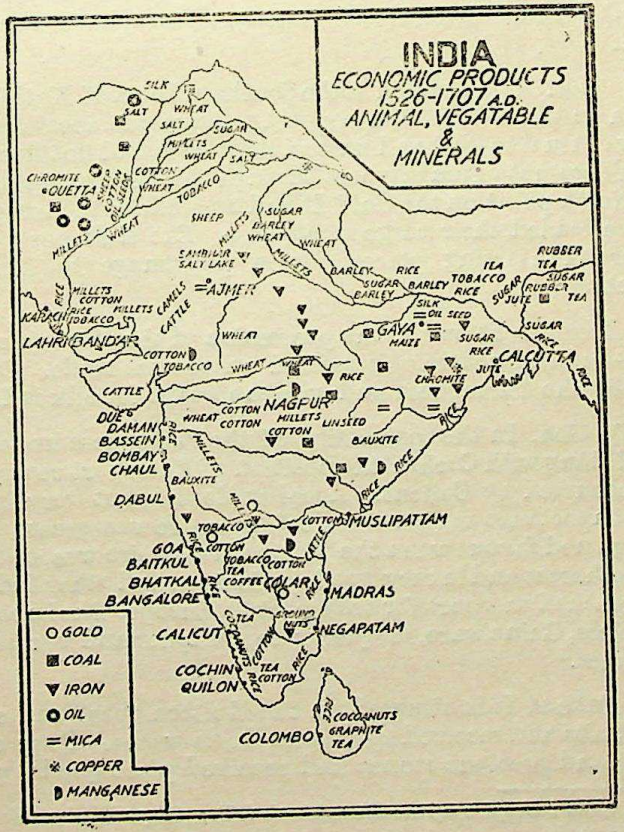
were no ports in the modern sense of the term, like that of Bombay or Karachi or Calcutta. Most of the important ports of the period either do not exist today or their names have been entirely changed. Some important ports are given below :

(*i*) *Diul Sind.* In fact this word was applied to the whole of the region, and at times to the particular harbour that existed at the end of the 16th century. To the earlier Arab geographers, it was known as Daibal or Deval. The usual name of this harbour was **Lahri Bander**, and it was situated at the mouth of the Indus in direct communication by water with Thatta, Multan and Lahore.[1]

(*ii*) *Thatta.* (Lower Sind) This developed after it came in the possession of Akbar, when the trading relations with the Portuguese were established. Coastal voyage ships going to Persia and on the



1. The name of Diul-Sind was also applied to the Delta of the Indus. To distinguish it from Diu, the portuguese gave this name. The original town Debal was destroyed by the Muslims in 711 A. D.

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Ormuz route touched this port. This port was unfavourably situated with regard to monsoon. The chief exports of the port consisted of cotton-goods, indigo and a variety of local produce meant for Persia or the South Coast of India. Imports to this port were the common ones including metals (silver larins) from Persia, spices and a variety of luxury goods. William Foster identifies it with Lari Bander. De Laet refers to it as situated 15 miles from the Sea.[1] Elliot places Debal at Karachi and Cunninggham between Karachi and Thatta. Abulfazl says that Debal and Thattah were the same. Under Akbar, in the Sarkar of Thattah, Lari Bander was an important Muhal with a revenue of 5,21, 419 dams.[2] Inayat Khan calculates the length of Shahjehan's dominions from Lari Bander to Sylhet to be 2000 Karoh Badshahi.[3] Khulasat mentions this port as one of the important ports out of five in Thattah Sarkar.

(*iii*)-(*v*) *Surat, Brooch and Cambay.* :These have already been described.

(*vi*) *Diu.* It is situated at the Southern Coast of Kathiawar. The navigation on the Gulf of Cambay being dangerous, specially for large ships, it was usual to load and unload ships here and flotillas of small boats could go upto Cambay port through the shallow waters at the extreme North point on the Gulf. It had no trade with Europe, as the Portuguese loaded their cargoes at Goa. The Gulf ports specially Surat, were the starting places for a pilgrimage to Mecca and Medina etc.[4]

(*vii*) *Bassein.* It was in the possession of the Portuguese and a great ship-building centre. It carried on coastal trade. Chaul was also held by the Portuguese and was important for silk industry.

(*viii*) *Goa.* In the possession of the Portuguese under treaty, it occupied along with Cochin, the position of Entreport centre, a place formerly occupied by Calicut. Local trade was not very important though its importance as a great collecting centre was great. Its local trade had gained favour when the Vijainagar Empire was at its zenith. It imported horses and luxury goods. Textiles and other Indian merchandise reached this port for transport to Europe. The imports consisted of spices, China ware, lacquer-ware, camphor and various drugs and perfumes.[5]

(*ix*) *Pulicat.* It is situated on the Eastern coast and exported goods to Straits and received spices and China-wares. Pegu exported gold, silver and precious stones and received piece goods, yarn and

1. De Laet : *Empire of the Great Mughal.* Tr. Eng. Hoyland and Bannerjee, p. 3.
2. Abulfazl : *Ain. Eng. Tr. Jarrett.* II. p. 341.
3. *Shahjehan Nama* : Zahid Khan Per MSS. (S. B. U.) p. 197
   Khulasat : Sujan Rai ; Per MSS. (S. B. U.) p. 36.
4. Moreland : *India at the Death of Akbar* pp. 204-5.
5. *Ibid.*, 19. 208.

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opium. It was well-situated for coastal shipping trade and traded with Bengal on the one hand and with Ceylon and Malabar on the other.

Bengal Ports. Amongst the Bengal ports may be mentioned Hoogly, Satgaon, Sripur and Chittagong. The first was situated up the Hoogly river; the second was the old port where the Grand-Trunk Road of Shershah terminated. Sripur was situated on the Meghna close to Sonargaon, the Eastern capital of Bengal under the Mughals, and Chittagong was out of the domain of the Mughals and under Arakan rulers. All these ports by virtue of their position, commanded trade of far-off regions, being connected with the interior.

Thus we see that the chief outlets for the produce of the country were "(i) the Cambay Ports; (ii) the Coromandal coast; (iii) Bengal and (iv) the Indus mouth[1]." Bengal ports were more important than the Coromandal ports.

1. Moreland, *India at the Death of Akber*, p. 212.

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CHAPTER XII

CONCLUSION AND SUMMARY

A detailed study of the various elements leading to industrialisation on scientific lines in an age bereft of a regular Science of Economics in this country, reveals an astounding disparity between the available resources, both natural and artificial and the human aspect in all its manifestations. Lord Meston, once hesitating whether the Mughals had a commercial policy, emphatically threw out a suggestion as to how the Mughals had no commercial policy.[1] With the scanty material available, it is not possible to say whether the Mughals had a definite trade policy for the Empire as a whole. This thesis nevertheless is an honest study of the details of people's history of the times when no contemporary writers, in Persian or English, cared to chronicle the development of society. Whereas enough matter is available through contemporary and secondary sources about the events at the court and on the battle-field, the history of the people has been sadly neglected. The present work is an attempt to study from heaps of original sources, the economic development of society upon which rested the structure of government. To a layman it might appear 'pouring old wines into new bottles' when the development of trade and industry is presented under modern frame. As we have already noted, Babar and Humayun's short rule allowed them no opporunity of commercial development. From Akbar's times, onwards, an era of prosperity dawned to allow of a breathing space for the needed development which was further improved by closer contact with various European countries, who made settlements in India from the beginning of the 17th century. A dynasty, like that of the Mughals, whose traditions "were all of fighting and conquest of land, never learned the lesson of Sea-Power; and the external commerce was permanently at the mercy of the various European navies which at different times, commanded their coasts . . . . their internal commerce was stunted... by the peculiar industrial conditions of the time. Labour abounded, of a sort, but the insecurity of the travel rendered it largely immobile ..... Another obstacle to trade was undoubtedly the lack of capital, enhanced by the peculiar form of death duties, which wealthy merchants were privileged to share with the nobles by having the whole of their estates confiscated to the Crown immediately after their death."[2]

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1. Lord Meston, the Governor of the United Provinces, while writing a Foreword to Dr. Pant's Thesis "The Commercial Policy of the Moguls" said "As his title the author has chosen 'The Commercial Policy of the Moghuls'; but with equal justice it might have been "How the Moghuls had no Commercial Policy"...(Foreword by Rt. Hon'ble Lord Meston).

2. Dr. Pant, *Commercial Policy of the Mughals*. Foreword by Lord Meston. pp. V-VI.

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We have seen that even Akbar and his successors, who with the solitary example of Aurangzeb, interested themelves in their personal trade profits, made the country's commerce dependent upon their will than upon the pressing needs of the times. Many Mughal rulers possessed huge resources in money and materials. But they wasted their treasures recklessly. Babar reserved not a single DINAR for himself, but divided it amongst his Umraos and troops, the share of the former to 2 lakhs each, of those of others were proportionate to their ranks and status. A part was sent to Kabul to be divided amongst his subjects, which yielded to each a silver sharock (a shilling sterling), besides presents which he sent to Samarqand, Cherrassan, Kashgar, Peurac, Mecca, Medina, Karbella, Nejf, Meshed and other holy places in charity. "This generosity" continues Dow, "bordered upon prodigality fixed upon Babar, the name of Collinder, whose custom was to keep nothing for tomorrow."[1]

The stray remarks, on being connected, clearly speak of an unwise economic policy followed from the very start by the founder of the Mughal dynasty, which later changed by Akbar, under the wise guidance of his able Finance Minister Raja Todarmal, again degenerated through reckless expenditure of Shahjehan, whose huge out-lay on buildings and things of costly fine arts as evidenced by peacock throne and a costly lamp sent to Mecca,[2] speak clearly of his aversion for the accumulation of capital, which could otherwise have drifted to more economic channels, especially the development of trade and industry. Mirat-i-Alam speaks of the prodigality of Shahjehan who awarded 72, lakhs of rupees on single 'Jashna' besides many costly rewards to ladies and princess of seraglio.[3]

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1. Alexander Dow, *History of Hindustan.*
2. Abdul Hamid, *Badshahnama* quoted in *Elliot* Vol. VII p. 25. The cost of pea-cock throne which took 7 years to complete was one crore of rupees. (1634 A. D.).
   Inayat Khan, *Shahjehan Nama,* Per MSS (S. B. U.) 205.
   Elliot Vol. VII. Chap. LXIII. (21st year of Shahjehan's rule)
3. Bakhtawar Khan, *Mirat-i-Alam* : Per MSS. (S. B. U.) pp. 696-775. *Examples of Shahjehan's prodigality* : In the above work the following examples are quoted :
   (i) Awarded 72 lakhs on a Jashna ; (ii) Two lakh Asharfis and three lakh rupees given to Mumtaz-uz-Zaman Begam ; (iii) One lakh asharfis and four lakh rupees given to Jehanara Begam ; rest to princesses, writers, poets ; (iv) Again gave Rs. 10 lakhs to Mumtaz-uz-Zaman Begum, and 60 lakhs to other begams ; (v) spent 70 lakhs in Gujrat famine and Deccan Famines. No canals were, however, constructed (p. 709) ; (vii) on Nauroz distributed one lakh of rupees as usual (p. 703) ; (viii) on the tomb of Mumtaz-uz-Zamani (Taj Mahal) spent 50 lakhs of rupees besides two lakhs on its maintenance. It was completed in 1053 H. Spent the same sum on Delhi Fort and various other buildings as quoted previously. (ix) Dara Shikoh was awarded 2 crore dams over and above the revenue from Punjab and Lahore which was 12 crore dams (p. 773) ; (x) Khaqan Sadullah Khan was presented a sword costing Rs. 150001- whose hilt was embedded with jewellery of Rs. one lakh (p. 774) A hookah of glass full of Jehangir otto and 2000 thans of cloth, rarities of Gujrat and Kashmir valued at one lakh of rupees given to him. (p. 774)

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Aurangzeb's long reign of 50 years was a history of a ceaseless struggle in the country from North to South which left no finances for the development of trade and industry. The country as a whole was in trouble, and with the death of Aurangzeb Mughal Rule in India may be said to have ceased as an effective force. None of his successors possessed any ability, and in their feeble rule, disintegration of the empire rapidly proceeded. "The eagles gathered greedily round the prostrate carcass."

Our study further shows that none of the great Emperors from Akbar to Aurangzeb had any constructive policy for encouraging or expanding the trade of India. It is true, Akbar had made attempts to rectify taxation, but the uncertainty of his custom assignments, and the frequency of transit dues, which, though in paper (farmans) successively repeated and rectified by all the Mughal Emperors, were not translated into action, and the seeming reforms were thus largely neutralised.

The cottage arts and village industries of India have survived the vicissitudes of dynasties and tyrannies of the great. The division of Indian society into professional castes handed down from antiquity, an attempt to self-sufficiency in villages, and indomitable barrier in the means of communication were responsible for the institution and maintenance of cottage industries, which were necessary to supply the simple needs of the villagers. The remarks of D. Ibbotson, in his report on the Census of the Punjab in 1881 can as well apply to the whole period under review. He observes: "Such industries. . . .as are necessary to supply the simple needs of the villages are prosecuted in the village itself. The Punjab village is eminently self-sustaining, it grows its own food, it makes its own implements, moulds its own domestic vessels.... It does without a doctor and looks to the outside world for little more than its salt, its spices, the fine cloths for its holiday, the clothes and coins in which it pays its revenue."[1]

In the period under review, the influence of personality and character of the ruler was keenly felt in the development of trade and industry. And "although the village community system stood as a permanent bulwark of safety against disorder, the regularity, vigour and efficiency of the higher agencies of administration were always uncertain depending as they did on the personal character of the ruler".[2]

The economic life of India, at the end of the 16th century, was characterised essentially by inadequate production and faulty distribution. Productive enterprise was penalised, the incentive to effort

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1. D. Ibbotson, *Report of the Punjab Census*, 1881, p. 18.
2. P. Saran, *The Provincial Government of the Mughals*, p. 436.

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was bound to diminish. In the history of the 17th and the 18th centuries also, the economic position was unstable and the seed had been sown of economic and political collapse.

New centres of trade were seldom created for, as W. W. Hunter says : "It is easier to pitch a tent and erect a palace which under the native dynasties was synonymous with founding a capital, than it is to create a centre of trade. Such centres must grow by themselves and cannot be called suddenly into existence by the fiat of the busiest autocrat. . . ."[1]

Hindus have been famous as temple-builders, the Muslims as palace or tomb-builders, the Marathas as fort-builders, the Portuguese as church-builders, but the English proved to be the great town-builders, possessing latent capacities for selecting sites, on which great commercial cities soon grew up to diffuse industrial life in their vicinity.

Our attempt in tracing the economic development of the Mughal period has been to study in detail the chief causes which were responsible for their slow progress. The glamorous historical record is a back-bone for posterity to derive the needed enthusiasm and encouragement; and the misgivings of the past, if duly avoided help us to move onwards in our march of industrial and commercial progress. "Video Meleora proboque, deteriora sequor."[2]

1. W. W. Hunter, *The Indian Empire*, p. 440.
2. *Latin Proverb* (I see the better course and approve it, I follow the worse.

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cription of the Kings of India, provinces of the Deccan, journey and scenery from Shahjehanabad to all directions and an account of mendicants. It is an important work for economic dscription of the provinces. This book was written at the instance of Wazir-ul-Mulk Ghasi-ud-din alias Shahabuddin in the troublous times of Ahmad-shah Abdali in 1173H.

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APPENDIX

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The following statistical tables are adduced to explain that price and cost of living indices were certainly favourable to the labouring classes in the period under study as compared to the present times. They are to be studied in collaboration with table on page 67.

A. PRICE INDICES

Table No. 1

PRICES OF FOOD GRAINS (Seers per rupee)

Year	Rice Bengal	Wheat Punjab	Jowar Madras	Bajra Bombay	Wheat N. W. P.
1861	27.07	19.23	25.24	21.55	18.49
1870	22.74	15.13	22.66	13.2	15.5

Table No. 2

Statistics of Prices Export wholesale

Prices of 1873 are taken to represent 100

Year	Cotton (Broach)	Rice (Ballari)	Rice (Nagastain)	Wheat (Delhi)	Jute (Picked)	Linseed (Bold)
1883	78	100	129	87	96	85
1889	93	144	142	98	192	104
1895	70	147	122	82	175	131

Table No. 3

INDEX OF WHOLESALE PRICES IN CALCUTTA

(30th July, 1914=100)

Commodities	Annual averages			
	1917	1918	1919	1920
Cereals	92	110	163	154
Pulses	96	119	180	166
Tea	95	95	105	78
Oilseeds	83	104	198	173
Hides and Skins	112	96	184	147
Jute raw	65	75	115	104
,, manufactured	138	219	175	149
Cotton raw	174	309	230	325
,, manufactured	203	298	295	325
Sugar	189	180	268	407
Metals	266	301	336	238

Table No. 1 D. R. Gadgil, Industrial Evolution of India, page 24.

Table No. 2 *Ibid.* p. 70 (Edition 1929)

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Table No. 4

Index No. of Retail Prices at Kanpur of some of the commodities other than those included in the working class cost of living indices (Base August 39 equal to 100)

No.	Items	Basic quotations	Basic prices Aug. 39.	Dec. prices 1948	Dec. indices.
1.	Barley	per seer	0-1 -1	0-6 -5	592
2.	Maize	,,	0-1 -1	0-6 -2	569
3.	Bajra	,,	0-1 -2	0-6 -6	587
4.	Wheat flour	,,	0-1 -7	0-10-4	653
5.	Gram flour	,,	0-1 -10	0-7 -5	405
6.	Urd dal	,,	0-2 -1	0-8 -9	420
7.	Moong dal	,,	0-2 -1	0-10-4	496
8.	Gur	,,	0-3 -10	0-7 -1	185
9.	Milk cows	,,	0-2 -2	0-10-8	492
10.	Til Oil	,,	0-6 -3	NOT QUOTED	
11.	Tea (Brooke Bond)	¼lb.	0-2 -4	0-9 -0	386
12.	Onions	per seer	0-0 -9	0-6 -9	900
13.	Chillies	,,	0-7 -0	2-13-3	646
14.	Garam Masala	,,	0-14-10	5-3 -9	565
15.	Charcoal	,, maund	1-7 -4	11-3 -3	768
16.	Castor oil	,, seer	0-4 -2	1-8 -0	576
17.	Pan (cheapest)	200	0-2 -5	0-5 -8	234

Table No. 5

GROUP INDEX NUMBERS

(Base 1939=100)

Groups	Weights	Group Index Numbers		
		Sept. 1953	Aug. 1954	Sept. 1954
1. Food	42	509	420	418
2. Fuel and light	6	408	391	393
3. Clothing	8	432	499	495
4. House rent	7	214	214	214
5. Miscellaneous	6	476	444	444
TOTAL	69	..	..	..
Cost of living index numbers	..	464	408	406

Table No. 3 D. R. Gadgil, page 228.

Table No. 4 Labour Bulletin p. 64 (Feb., 1949)

Table No. 5. Labour Bulletin U. P. Oct. 1954. p. 66.

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Table No. 6

Working class cost of living index No. for leading industrial centres in India. (Base 1939 equal to 100)

STATES		U. P.	Bombay			M. P.	
Months	Centres	Kanpur 100	Ahmedabad 73	Bombay 105	Sholapur 73	Nagpur 100	Madras 98
Jan-Dec.	1944	314	290	226	276	267	..
,,	1945	308	272	224	276	259	227
,,	1946	320	286	247	290	276	240
,,	1947	378	300	266	342	320	278
,,	1948	471	333	288	400	372	315
,,	1949	478	339	292	410	377	301
,,	1950	434	351	298	398	372	332
,,	1951	451	357	314	428	391	441
,,	1952	441	355	321	421	380	337
Average	1953	453	377	346	442	387	358
,,Aug.	1953	463	390	358	445	397	359
,,July	1954	400	330	349	392	377	346
,,Aug.	1954	408	325	345	392	372	343

N.B. This table illustrates how prices have affected the working class cost of living index number.

Table No 7.

Annual Average Index Nos. of wholesale prices in Calcutta by groups of articles 1937 to 1946 (Base end of July 1941 equal to 100)

Year	Cereals	Pulses	Sugar	Tea	Other food	Oil seeds	Raw cotton	Oil mustard	Raw jute
1937	77	89	102	144	125	125	75	56	58
1938	72	88	132	130	109	106	77	49	67
1939	86	99	164	142	125	106	81	80	75
1940	99	101	157	149	146	106	78	79	87
1941	112	105	145	202	178	103	78	77	77
1942	157	162	208	241	298	143	85	77	96
1943	396	373	319	166	537	270	216	123	174
1944	244	312	331	112	574	288	224	222	140
1945	235	273	315	172	527	280	206	170	149
1946	230	404	394	233	592	338	231	115	192

Table No. 6 *Ibid*, p. 77

Table No. 7 Abstract of Ag. Statistics of India 1936-37 to 1945-46 Issued by Economic and Statistical Adviser, 1954, p. 34.

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Table No. 8

All India Index Numbers of wholesale prices
(Base August 1939 equal to 100)

Year	Cereals	Pulses	Other food	All food articles	Textile	General index
1947	312	471	232	292	314	297
1948	345	426	269	375	406	368
1949	466	439	277	390	398	381
1950	472	451	314	411	402	401
1951	483	506	200	410	468	439
1952	450	483	225	360	404	387
1953 Jan.	451	497	266	381	400	394
1954 Jan.	440	424	288	382	401	399

Table No. 9

Prices in Vindhya Pradesh of important commodities.
(Base 1939)

Commodity	RETAIL PRICES		Index Numbers
	1938-39	1949-50	
	Rs. as. p.	Rs. as. p.	
Wheat	2 - 8 - 1	14 -13 - 5	580.0
Rice	3 - 1 - 9	18 - 1 - 4	581.6
Grain	2 - 0 - 9	9 -14 - 5	483.7
Barley	1 - 11 - 5	8 - 3 - 9	480.5
Kodo	1 - 6 -11	7 - 7 -11	523.3
Peas	1 - 11 -11	9 - 8 - 9	597.2
Arhar	3 - 1 - 5	12 -15- 4	419.6
Moong	3 - 7 -10	15 -11-11	451.2
Masoor	3 - 3 -10	13 -10- 6	421.5
Sugar	13 - 15 - 4	36 -10- 8	275.0
Gur	6 - 4 - 0	35 - 3- 4	804.7
Salt	2 - 8 - 0	4 -12- 8	191.7

(Prices are for one standard maund of 40 srs.)

Table No. 10

Index Numbers of Agricultural prices in U. P. 1948 equal to 100.

Month	Wheat	Rice	Grain	Barley	Maize	Bajra	Jawar	Arhar	Urd	Moong
Average 1953	86	100	121	97	196	105	99	113	126	116
Aug. 1953	85	110	127	99	108	115	108	115	142	125
July, 1954	60	78	77	70	85	77	70	65	70	70
Aug. 1954	62	78	75	67	81	74	64	63	69	70

Table No. 8 Indian Labour Gazette Vol. 11 March, 1954 No. 9.p. 948.

Table No. 9 Ag. Wages in India Vol. 1 (1952) p. 360.

Table No. 10. Labour Bulletin, U.P., Oct., 1954, p. 78.

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Agricultural Prices (Continued)

Month	Rape seed	Lin-seed	Til	Cotton seed	Hemp	Cotton	Gur	Toba-cco	Bhusa	Ghee
Average 53.	106	114	114	133	132	134	108	102	104	89
Aug. 53.	120	124	142	94	132	122	130	101	68	88
July 54.	102	91	98	82	150	134	149	97	52	88
Aug. 54.	104	90	90	82	157	143	149	76	58	69

Table No. 11

Number of persons placed in employment by exchanges classified according to Basic wage group.

Months	No. of persons placed in employment by wage groups.					
	Rs. 20/- per month and below,		Rs. 21/- to 35/- p. m.		Rs. 36/- to 60 p. m.	
	India	U. P.	India	U. P.	India	U. P.
May, 1948	1563	334	8097	1409	9755	2153
June '48	1813	455	8826	1776	13285	2344
July '48	1963	666	9408	1378	8459	2966
Aug. '48	2339	789	9610	1675	12805	2429
Sept. '48	1466	342	10793	1989	12406	2679
Oct. '48	1136	134	6217	1268	9089	3160
Nov. '48	1134	58	6853	1068	9404	3217

Continued :

Months	Rs. 61-100		Rs. 100 and above		Total	
	India	U. P.	India	U. P.	India	U. P.
May. '48	407	232	304	33	21126	4161
June '48	155	232	300	48	25379	4855
July '48	1966	587	404	196	27002	5793
Aug. '48	1803	525	512	315	27069	5733
Sept. '48	1745	620	406	67	26816	5697
Oct. '48	1752	657	341	49	18535	5268
Nov. '48	831	610	306	73	19528	5026

Table No. 11, U. P. Labour Bulletin, June, 1949, p. 30

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Table No. 12

AVERAGE EARNINGS OF JUNE, 1954
WORKING CLASS

Cities	Basic Wage Rs.	D.A. Rs.	P.E. cont. Rs.	Bonus 15% Rs.	Ins. Cont. Rs.	Holi-days with pay	Total Rs.	W. C. C. I.
Bombay	30-0-0	64-5-6	5-11-0	4-8-0	-11/3	5/12	111-2-9	350/-
Ahmedabad	28-0-0	70-0-0	6-2-0	4-4-0	-11/9	6/-	115-1-0	329/-
Kanpur	120-0-0	7-0-0	7-8-0	..	..	..	134-8-0	396/-

Table No. 12, *Ibid*, Oct., 1954, p. 6

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Table No. 13

Average annual earnings of Factory Employees

(By States)

State	1939 Rs.	1945 Rs.	1946 Rs.	1947 Rs.	1948 Rs.	1949 Rs.
Ajmer	163.7	419.8	447.8	445.3	527.3	552.0
Assam	263.7	660.5	687.5	755.5	795.8	951.1
Bihar	415.5	538.7	544.0	819.8	946.2	983.9
Bombay	370.4	814.7	812.3	977.9	1441.9	1210.1
Delhi	309.4	696.9	837.2	877.7	1047.3	1028.4
M. P.	Not available	530.6	479.7	572.3	609.2	841.9
Madras	175.9	357.6	422.2	560.3	611.8	726.6
Orissa	161.8	417.2	440.1	493.6	612.6	527.6
Punjab	296.8	578.8	602.0	628.2	675.9	858.7
U. P.	235.6	551.7	592.6	672.8	887.1	953.0
W. Bengal	248.7	465.5	493.3	567.7	723.9	839.0

Table No. 14

Earnings of Factory Employees

(By Industries)

Industry	1939	1947	1948	1949
	Rs.	Rs.	Rs.	Rs.
Textiles	293.5	771.7	931.9	1055.8
Cotton	320.2	909.3	1094.4	1192.9
Jute	230.8	457.6	637.7	794.9
Engineering	263.5	698.7	879.4	938.1
Minerals and Metals	457.2	886.2	928.5	1012.3
Chemicals and dyes	244.8	592.6	663.8	721.7
Paper and Printing	332.7	728.5	835.5	911.5
Wood stone and glass	194.2	495.4	572.0	615.6
Skins and Hide	285.8	603.9	841.2	889.9
Ord. factory	361.9	755.2	918.0	1128.6
Mints	367.4	1071.2	1378.2	1437.2
Misc.	281.2	663.1	799.0	876.7
All Industries	287.5	737.0	883.0	985.9

N.B. Figures relate to undivided India upto 1946, and to Indian Union thereafter.

1. Covers all employees drawing below Rs. 200 in perennial Industrial group. The average for the years 1939,45,46 relates to the prepartition of the Provinces of Assam, Punjab and Bengal respectively.

Table No. 13 Statistical Abstract India 1950, Table 164, p. 611.

Table No. 14 : *Ibid*, Table No. 165, p. 611.

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Table No. 15

WAGES IN TEA PLANTATION AND MINING INDUSTRY

Year	Tea gardens in Assam		Average daily earnings of underground miners.	
	Average monthly cash earnings of settlement labourers.		Jharia coal mines Average daily earnings of underground miners.	
	Rs. as. p.	Index 1	Rs.as.p.	Index 1
1939	7-7-11	90	0-9 -9	65
1940	7-7-0	89	0-9 -6	63
1941	7-5-8	88	0-10-0	67
1942	8-3-3	98	0-11-0	73
1943	8-3-10	92	0-13-0	92
1944	9-1-1	109	1-1 -6	117
1945	8-9-7	103	1-2 -3	122
1946	9-9-0	115	1-8 -3	183
1947	14-4-4	171	2-5 -0	247
1948	17-8-8	210	2-8 -3	267
1949	18-9-0	222	2-5 -9	252

1. Base : 1920 equal to 100

Table No. 16

WAGES IN MICA AND MANGANESE MINES

Year	Average daily earnings of underground miners			
	Madras mica mines		M. P. manganese mines	
	Rs.as.p.	Index 1	Rs.as.p.	Index 1
1939	0-6 -3	104	0-7 -7	68
1940	0-5 -9	96	0-7 -9	76
1941	0-6 -6	108	0-8 -5	82
1942	0-7 -0	117	0-8 -9	85
1943	0-11-6	192	0-13-9	134
1944	0-15-6	259	0-13-6	132
1945	0-15-6	259	0-15-6	151
1946	1-1 -3	288	1-0 -0	156
1947	1-4 -3	388	1-7 -9	232
1948	1-3 -6	325	1-14-9	300
1949	1-9 -3	521	1-13-0	282

.1 Base : 1920 equal 100

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Table No. 17

WAGES OF LABOURERS
Base 1913-14 is equal to 100

Labourers	Urban areas	Rural areas
	1929	1929
Field labour	221	194
Ordinary labour	204	181
Skilled labour	216	215

Table No. 18

MINIMUM WAGES OF AGRICULTURISTS IN COORG in 1952

Category	Minimum wages per day		
	Basic wage	Cost of living allowance	Total
	Rs. as. p.	Rs. as. p.	Rs. as. p.
Men	1 - 2 - 0	0 - 3 - 0	1 - 5 - 0
Women	0 - 13 - 9	0 - 2 - 0	0 - 15 - 9
Adolescents	0 - 10 - 9	0 - 2 - 0	0 - 12 - 9
Children	0 - 9 - 0	0 - 1 - 6	0 - 10 - 6

Table No. 19

Minimum wages of non-agriculturists in Assam in 1952.

Industry	Unit	Minimum basic wage	D.A.	Remarks
Mineral oil	Assam oil Co. Digboi	Rs. as. p. 1-2-6 per day	Rs. as. p. 1-7-6 per day or 38-3-0 p.m.	D. A. is graded according to wage groups.
Coal mining	All Coal mines in the State	0-8-0 per day	14-0-0 per month for those getting min. wage	

Table No. 15 : Statistical Abstract, India, 1950 Table 166, p. 612
Table No. 16 : Ibid.
Table No. 17 : In the coalfields wages were reported to have risen in 1919-20 and to have begun to decline in 1925, (Report of the Chief Inspector of Mines for 1919, 1920 and 1925), but it is difficult to gauge the extent of these movements. Labour Gazette Jan. 1929.
Table No. 18. Agricultural Wages in India, Vol. 1 (1952), p. 45.
Table No. 19 : *Ibid*, page 61.

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Table No. 20

Details of cash value of average daily wages of four important agriculture operations in V. P

Operation	Year	Cash value of average daily wage		
		Men	Women	Children
		Rs. as. p.	Rs. as. p.	Rs. as. p.
Ploughing	1938-39	0 - 1 - 9	0 - 1 - 0	0 - 1 - 0
,,	1949-50	0 - 9 - 11	0 - 6 - 0	0 - 3 - 10
		(566.7)	(600)	(384.2)
Sowing	1938-39	0 - 1 - 8	0 - 1 - 6	0 - 1 - 5
,,	1949-50	0 - 9 - 7	0 - 8 - 3	0 - 6 - 4
		(575.)	(550.)	(447.1)
Weeding	1938-39	0 - 1 - 6	0 - 1 - 4	0 - 1 - 1
,,	1949-50	0 - 8 - 4	0 - 7 - 8	0 - 5 - 8
		(555.6)	(575.)	(523.1)
Harvesting	1938-39	0 - 1 - 8	0 - 1 - 6	0 - 1 - 5
,,	1949-50	0 - 9 - 2	0 - 8 - 6	0 - 7 - 5
		(550.0)	(566.7)	(523.5)

Table No. 21

WAGES IN RICE MILLS IN 1953-54

States	Minimum wages fixed under Minimum Wages Act, 1948
Assam	Rs. 1-8-9 to 1-11-9
Bihar	Rs. 1-8-4
Bombay	Rs. 1-8-9 to 2-5-0
M. P.	Rs. 0-12-0 to 1-0-0
Madras and Andhra	Rs. 0-12-0
Orissa	Rs. 1-0-0
Punjab	Rs. 1-12-0
U. P.	Rs. 1-0-0
West Bengal	Rs. 0-13-6 to 1-2-0
Mysore	Rs. 1-0-0
Rajasthan	Rs. 1-2-0
Saurashtra	Rs. 1-4-0 to 2-0-0
Coorg	Rs. 1-14-0 to 2-1-2

Table No. 20 : *Ibid*, p. 359. Figures denote index Nos. of wages as compared to 1938-39 as base. (100)

Table No. 21 : Indian Labour Gazette, Vol. 11, Feb,, 1954, No. 8, p. 752.

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Table No.22

NUMBER OF FACTORIES (RICE MILLS) IN WHICH MINIMUM DAILY WAGE RATE WAS

Stations	-/12/- or above Re. 1/-.	Re. 1 or above upto Re. 1/4	Re.1/4 or above upto 1/8.	Rs. 1/8 or above	Total
Andhra and Madras	7	17	5	3	32
Bihar and Orissa	..	3	3	5	11
M. P. and Hyderabad	3	2	2	2	9
W. Bengal and Assam	3	3	2	5	13

N. B. : The rice mill industry is covered by the Minimum Wages Act, 1 948 under which minimum rates of wages payable to workers employed in the industry have been fixed in most of the States. The rate prevailing in many of the States, however, appeared to be somewhat higher than the minimum fixed by the Government.

Table 22, *Ibid*, p. 752.

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C. COST OF LIVING INDEX NUMBERS

Table No. 23

WORKING CLASS COST OF LIVING INDEX NOS. FOR AUG. 1939

Base 1913 is equal to 100.

Provinces	U·P.	Bihar		Bombay			C. P.		Madras
	Kanpur	Jamshedpur	Jharia	Ahmd.	Bombay	Sholapur	Jabalpur	Nagpur	Madras
	(100)	(108)	(121)	(73)	(105)	(73)	(100)	(100)	(98)
Jan.-Dec. .. 1944	314	316	317	290	226	276	309	267	..
.. 1945	308	305	307	272	224	275	283	259	227
.. 1946	329	332	327	286	247	290	302	276	240
.. 1947	378	398	362	300	266	342	326	320	278
Dec. 1947	389	395	374	218	285	249	332	330	305
Nov. 1948	534	459	438	364	302	421	409	387	317
Dec. 1948	508	419	413	358	310	422	413	389	329

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Table No. 24

WORKING CLASS COST OF LIVING INDEX NUMBERS FOR LEADING INDUSTRIAL CENTRES EXPRESSED AS PERCENTAGES OF CORRESPONDING FIGURE FOR AUGUST, 1939

(Base 1939 = 100)

States	U. P.	Bombay			M.P.	Madras
Centre	Kanpur (100)	Ahmd. (73)	Bombay (105)	Sholapur (73)	Nagpur (100)	Madras (98)
Months						
Jan.						
Dec. 1944	314	290	226	276	267	..
,, 1945	308	272	224	276	259	227
,, 1946	320	286	247	290	276	240
,, 1947	378	300	266	342	320	278
,, 1948	471	333	288	400	372	315
,, 1949	478	339	292	410	377	301
,, 1950	434	351	298	398	372	332
,, 1951	451	357	314	428	391	441
,, 1952	441	355	321	421	380	337
Average						
Aug. 1953	463	390	358	445	397	359
Average	453	377	346	442	387	398
July 1954	400	330	349	392	377	246
Aug. 1954	408	325	345	392	372	343

(Figures within brackets denote the cost of living index of their respective series in Aug. 1939)

Table No. 23 : Labour Bulletin, U P., February, 1949 p. 69.

Table No. 24 : *Ibid*, October, 1954, p. 77

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Table No. 25

Cost of living indices (Working Class cost of living index numbers.
Base shifted to Aug. 1939 is equal to 100)
(Average Jan. to Dec.)

Cities	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950
Ahmedabad	107	108	119	156	282	290	272	286	300	333	339	351
Bombay	103	107	118	150	219	226	221	246	265	288	292	298
Calcutta	108	106	115	144	289	279	284	275	309	339	348	349
Kanpur	105	111	123	181	306	314	308	328	378	470	478	437
Madras	106	109	114	136	180	207	228	240	277	315	330	332
Nagpur	104	110	119	165	299	267	259	285	320	372	377	372

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Table No. 26

LABOUR BUREAU WORKING COST OF LIVING INDEX NUMBERS

Base Jan. to Dec. 1944 is equal to 100

Average	Delhi	Ajmer	Jamshed pur	Jharia	Dehri on Sone	Mungher	Cuttuck	Behram-pur
1950	132	168	145	182	185	193	163	162

Continued

Average	Gohati	Silchar	Tin Sukia	Ludh iana	Akola	Jabal pur	Kharag-pur
1950	126	146	114	165	162	153	137

Table No. 27

COST OF LIVING INDEX NO. FOR LOW PAID EMPLOYEES AT DIFFERENT MOFUSSIL CENTRES IN MADRAS ANDHRA AND MYSORE

(Base : July 1935 to June, 1936=100)

Year	Visakha Pattam	Elurin	Bellary	Cudda-lore.	Tiruchira Palli	Madurai	Coim-batore	Kozhi-kode
1948	338	367	370	372	351	331	337	394
1949	360	396	378	364	365	360	385	409
1950	354	404	383	373	372	348	388	428
1951	371	438	392	385	367	367	407	453
1952	366	444	383	366	362	368	403	440
1953	381	465	..	369	365	380	418	439
Jan.54	381	463	..	379	363	365	412	421

Table No. 25 : The Indian Labour Year Book, 1949-50 p. 499-504

Table No. 26 : Ibid p. 506

Table No. 27 : Indian Labour Gazette Vol. 11. March, 1954. No. 9 p. 940 (Source : Public Economics and Statistics Department, Govt. of Madras.)

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